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July-2022
CURRENT
AFFAIRS
MAGAZINE

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#OnlyOneEarth
WORLD ENVIRONMENT DAY 2022

PRADHAN MANTRI MATSYA SAMPADA YOJANA
PMMSY

RAO'S ACADEMY
for Competitive Exams

YOUR SUCCESS OUR PRIORITY

Rao's Academy
for Competitive Exams
(A unit of **RACE**)

July , 2022

Current Affairs

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RAO'S ACADEMY

Buddha Purnima

Buddha Jayanti, Vaisakhi Buddha Purnima, Vesak or Buddha Purnima, is a festival celebrated to commemorate the birth of Gautama Buddha.

- Buddha's birth is celebrated as part of a festival called 'Vesak,' which combines the three key events of his life — his birth, enlightenment, and death.

History of Buddha Purnima
- Buddha Purnima (also known as Buddha Jayanti) celebrates the birth of Prince Siddharta Gautama.
- The word 'Purnima' is Sanskrit for 'full moon', which explains why it is celebrated on a full moon day, and 'Jayanti' means 'birthday'.
- The word Buddha is given to those who attain 'bodhi' or wisdom, hence the name was ascribed to Siddhartha once he attained enlightenment.
- Buddha Purnima commonly celebrated during the month of 'Vaisakhi' in Hindu/Buddhist lunar calendars.
- Buddha Purnima will mark the 2566th birth anniversary of Gautam Buddha.

About Gautama- The Buddha

- Buddha, regarded as the ninth incarnation of Lord Vishnu, was born on Shukla purnima of Baisakh month in the lunar calendar.
- Siddhartha Gautama, was born around 567 B.C.E., to mother Maya and father King Suddhodana of the Sakyan kingdom under Kshatriya clan.
- His father was a chief of the Shakya clan.
- It is said that twelve years before his birth the brahmins prophesied that he would become either a universal monarch or a great sage.
- To prevent him from becoming an ascetic, his father kept him within the confines of the palace.
- Gautama grew up in princely luxury, shielded from the outside world.
- He was married to Princess Yashodhara and had a son named Rahul.
- At about age of 29, in the streets of Kapilavastu, he encountered three simple things: a sick man, an old man, and a corpse being carried to the burning grounds.

- He then resolved to leave the palace in search of the answer to the problem of suffering.
- After bidding his wife and child a silent farewell without waking them, he rode to the edge of the forest.
- Gautama encountered a variety of methods and teachers and finally settled down to work with two teachers.
- From Arada Kalama, he learned how to discipline his mind to enter the sphere of nothingness.
- Next Siddhartha learned how to enter the concentration of mind which is neither consciousness nor unconsciousness from Udraka Ramaputra.
- For six years Siddhartha along with five companions practiced austerities and concentration.
- Siddhartha after a lot of austerities washed himself in the Niranjana River, and then set off to the Bodhi tree.
- At the age of 35 on the same day of his birth, he attained enlightenment (Nirvana) under that pipal tree and became the Buddha, the Enlightened One.
- He also came to be known as Shakyamuni, the sage of the Shakyas.
- He gave his first sermon to his five companions at the Deer Park in Sarnath near Varanasi.
  - This event was called Dharma-chakra-pravartana (Turning the wheel of Law).

The Four Noble Truths

The basic tenets of Buddhism are explained through the four major Noble truths. They are:

- The truth of suffering (Dukkha).
- The truth of the origin of suffering (Samudāya.)
- The truth of the cessation of suffering (Nirodha).
- The truth of the path to the cessation of suffering (Magga).

If one could get rid of desires and needs, then one could be free and at peace. This can be attained through following the 'Noble Eightfold Path'.

Note: The predecessor of Buddha under Buddhism was Kassapa Buddha and his successor will be Maitreya.

250th Birth Anniversary of Raja Ram Mohan Roy

Ministry of Culture held inaugural ceremony to commemorate the yearlong celebration of the 250th Birth Anniversary of Raja Ram Mohan Roy.

About Raja Ram Mohan Roy
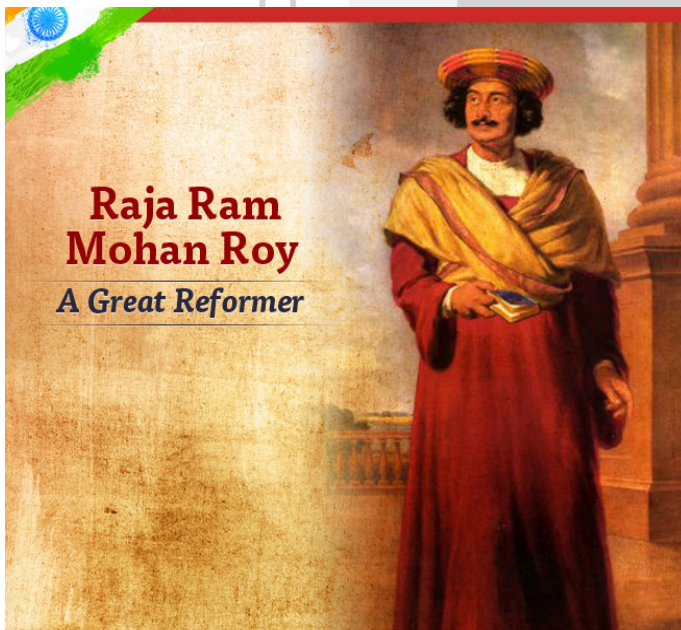
- Raja Ram Mohan Roy is considered as the pioneer of modern Indian Renaissance for the remarkable reforms he brought in the 18th and 19th century India.
- Raja Ram Mohan Roy was born on May 22, 1772 in village Radhanagar in the District of Hooghly in Bengal.

- His father Ramkanto Roy, was a Vaishnavite, while his mother, Tarini, was from a Shakta background.
- Raja Ram Mohun Roy was sent to Patna for higher studies.
- By the age of fifteen, Raja Rammohun Roy had learnt Bangla, Persian, Arabic and Sanskrit.
- Raja Ram Mohan Roy was against idol worship and orthodox Hindu rituals.
- This led to differences between Raja Ram Mohan Roy and his father.
- Following differences he left the house. He wandered around Himalayas and went to Tibet.
- After returning, Raja Ram Mohan Roy went to Varanasi and studied the Vedas, the Upanishads and Hindu philosophy deeply.
- From 1803 to 1814, he worked for East India Company as the personal diwan, first of Woodforde and then of Digby.
- In 1814, Raja Ram Mohan Roy formed Atmiya Sabha.
  - Atmiya Sabha tried to initiate social and religious reforms in the society.
- Raja Ram Mohan Roy campaigned for rights for women, including the right for widows to remarry, and the right for women to hold property.
  - He actively opposed Sati system and the practice of polygamy.
- He also supported education, particularly education of women.
- In 1822, he founded a school based on English education.
- In 1828, Raja Ram Mohan Roy founded the 'Brahma Samaj'.
- Raja Ram Mohan Roy's efforts bore fruit when in 1829 and the Sati system was abolished.
- Ram Mohan Roy was given the title of 'Raja' by the titular Mughal Emperor of Delhi, Akbar II.
  - This is in 1831 when he travelled to the United Kingdom as an ambassador of the Mughal emperor to plead for his pension and allowances.
- In his address, entitled 'Inaugurator of the Modern Age in India,' Tagore referred to Ram Mohan as 'a luminous star in the firmament of Indian history'.

Amendments to the National Policy on Biofuels -2018

The Union Cabinet, chaired by Prime Minister, has approved the Amendments to the National Policy on Biofuels -2018.

- The "National Policy on Biofuels - 2018" was notified by Ministry of Petroleum and Natural Gas in 2018 in supersession of National Policy on Biofuels, promulgated through the Ministry of New & Renewable Energy, in 2009.

Key Points

The following are the main amendments approved to the National Policy on Biofuels:

- to allow more feedstocks for production of biofuels,
- to advance the ethanol blending target of 20% blending of ethanol in petrol to ESY 2025-26 from 2030,
- to promote the production of biofuels in the

country, under the Make in India program, by units located in Special Economic Zones (SEZ)/ Export Oriented Units (EoUs),

- to add new members to the National Biofuel Coordination Committee (NBCC),
- to grant permission for export of biofuels in specific cases, and
- to delete/amend certain phrases in the Policy in line with decisions taken during the meetings of National Biofuel Coordination Committee.

About National Policy on Biofuels 2018

The National Policy on Biofuels was notified by the Ministry of Petroleum and Natural Gas in 2018.

- The Policy categorises biofuels as "Basic Biofuels" viz.
  o First Generation (1G) bioethanol & biodiesel,
  o Second Generation (2G) ethanol, Municipal Solid Waste (MSW) to

BENEFITS OF NATIONAL BIOFUEL POLICY 2018

- Additional income to farmers
- Reduce import dependency of crude
- Cleaner environment
- Health benefits through encouraging utilization of used cooking oil as feedstock for production of biodiesel
- Waste to Wealth - agriculture, forestry & municipal solid waste
- Infrastructural investment in rural areas through setting up of 2G bio refineries
- Employment generation through bio refineries, plant operations, village level entrepreneurship and supply chain

drop-in fuels,

- o Third Generation (3G) biofuels, bio-CNG etc. to enable extension of appropriate financial and fiscal incentives under each category.
- The Policy expands the scope of raw material for ethanol production by allowing use of following:
  - o Sugarcane Juice, Sugar containing materials like Sugar Beet,
  - o Sweet Sorghum,
  - o Starch containing materials like Corn, Cassava, and
  - o Damaged food grains like wheat, broken rice, Rotten Potatoes, unfit for human consumption for ethanol production.
- The Policy allows use of surplus food grains for production of ethanol for blending with petrol with the approval of National Biofuel Coordination Committee.
- With a thrust on Advanced Biofuels, the Policy indicates a viability gap funding scheme for 2G ethanol Bio refineries of Rs.5000 crore in 6 years in addition to additional tax incentives.
- The Policy encourages setting up of supply chain mechanisms for biodiesel production from non-edible oilseeds, Used Cooking Oil, short gestation crops.

What are the benefits?

- Reduce Import Dependency: One crore lit of E10 saves Rs.28 crore of forex at current rates.
  - o In 2017-18, a supply of around 150 crore litres of ethanol resulted in the savings of over Rs.4000 crore of forex.
- Cleaner Environment: One crore lit of E-10 saves around 20,000 ton of CO_2 emissions.
  - o In 2017-18, there was lesser emissions of CO_2 to the tune of 30 lakh ton.
- Health benefits: Prolonged reuse of Cooking Oil for preparing food, particularly in deep-frying is a potential health hazard and can lead to many diseases.
  - o Used Cooking Oil is a potential feedstock for biodiesel and its use for making biodiesel will prevent diversion of used cooking oil in the food industry.
- MSW Management: It is estimated that, annually 62 MMT of Municipal Solid Waste (MSW) gets generated in India.
  - o There are technologies available which can convert waste/plastic, MSW to drop in fuels.
  - o One ton of such waste has the potential to provide around 20% of drop in fuels.

- Infrastructural Investment in Rural Areas
- Employment Generation
- Additional Income to Farmers

National Monuments Authority (NMA) making Heritage By-Laws

National Monuments Authority (NMA), has made a record number of 101 Heritage By-Laws during the covid period (from 2019 onwards).

- During this period, the authority has covered a total of 126 centrally protected monuments.

Key Points

- As per the AMASR Act and the mandate given to the NMA, the HBLs work was supposed to be finished by 2012.
  - o This work would have then covered the entire gamut of more than 3600 centrally protected monuments throughout India.
- But the formation of By-Laws was slow and only five Heritage By- Laws (HBLs) covering 31 centrally protected monuments finalized in the preceding ten years.

About National Monuments Authority (NMA)

National Monuments Authority (NMA) has been setup as per provisions of The Ancient Monuments and Archaeological Sites and Remains AMASR (Amendment and Validation) Act, 2010.

- It is under the Ministry of Culture, Govt. of India.
- Several functions have been assigned to the NMA for the protection and preservation of monuments.
- One amongst these responsibilities of NMA is also to consider grant of permissions to applicants for construction related activity in the prohibited and regulated area.
- The need for the HBLs was induced by the increasing rate of urbanization, development, and the aggravating pressure on land around the centrally protected monuments.
  - o This often obstructed and came in the way of the monument's 300 meters peripheral jurisdiction.
- This made it imperative, for regulating the property and individual growth around the monuments.
  - o Along with the need to balance it with the cause of protecting and preserving the monuments itself.
- Such situations led to the formulations of the Heritage by-Laws (HBLs) by the NMA so as to regulate the developmental works around the monuments.

National Women Legislators Conference-2022

The President of India inaugurated the National Women Legislators' Conference-2022 in Thiruvananthapuram.

- The Conference is being hosted by the Kerala Legislative Assembly as part of 'Azadi ka Amrit Mahotsav'.

Key Points

- The conference was attended by 120 delegates from different states across the country.
- A resolution was moved to make 33 per cent reservation for women in legislative bodies a reality.
- Another resolution adopted in the conference called for a legislation to curb defamatory remarks against women.

Ministry of Parliamentary Affairs

Ministry of Parliamentary Affairs (MPA) was recently celebrating the Iconic Week of Azaadi Ka Amrit Mahotsav.

About Ministry of Parliamentary Affairs

- The Ministry of Parliamentary Affairs, though small in size, is one of the key Ministries of the Union Government.
- It is headed by the Union Cabinet Minister of Parliamentary Affairs.
- The task of efficiently handling diverse and enormous parliamentary work on behalf of the Government in the Parliament has been assigned to the Ministry of Parliamentary Affairs.
- As such, the MPA serves as an important link between the two Houses of Parliament and the Government in respect of Government Business in Parliament.
- Created in May, 1949 as a Department, it soon became a full-fledged Ministry with the allotment of more responsibilities and functions.
- The Ministry renders secretarial assistance to the Cabinet Committee on Parliamentary Affairs.

Mission and Objective of MPA

To act as an efficient facilitator to constantly improve Government's interaction with Parliament by:-

- Planning, coordinating and monitoring Government's business in Parliament.
- Helping Ministries/Departments to effectively carry out their Parliamentary work.
- Responding actively and effectively on behalf of the Government in respect of directions, resolutions etc.
- Constituting and arranging meetings of Consultative Committees of Members of Parliament for Ministries.
- Taking initiatives through organizing of conferences, programs, etc. for increasing awareness about the Parliamentary system.
- Administering policies relating to Salaries, facilities and welfare related matters of Members of Parliament.
- Coordinating Ministries/Departments for implementation of assurances given by Ministers in both the Houses of Parliament.

Functions

Functions assigned to the Ministry under the Government of India (Allocation of Business) Rules, 1961 made by the President under Article 77(3) of the Constitution of India:-

- Dates of summoning and prorogation of the two Houses of Parliament, Dissolution of Lok Sabha, and President's Address to Parliament.
- Planning and Coordination of legislative and other official business in both Houses.
- Allocation of Government time in Parliament for discussion of motions given notice of by Members.
- Appointment of Members of Parliament on Committees and other bodies set up by Government.
- Governments stand on Private Members Bills and Resolutions.
- Advice to Ministries on procedural and other Parliamentary matters.
- Matters connected with powers, privileges and immunities of Members of Parliament.
- Organisation of Youth Parliament Competitions in Schools/Colleges throughout the country.
- The Ministry also administers the following:
  - the Salaries and Allowances of Officers of Parliament Act, 1953,
  - the Salary, Allowances and Pension of Members of Parliament Act, 1954,
  - the Salary and Allowances of Leaders of Opposition in Parliament Act 1977 and

o the Leaders and Chief Whips of Recognised Parties and Groups in Parliament (Facilities) Act, 1998.

PM CARES for Children Scheme

The PM CARES for Children Scheme was launched by The Hon'ble Prime Minister of India for the Children.

- PM CARES for Children scheme aims to support children who lost their parents due to coronavirus during the pandemic.

About the Scheme

The scheme aims to support children who have lost both the Parents or legal Guardian or Adoptive Parents or Surviving Parent to COVID-19 pandemic during the period starting from 11th March 2020.

- The objective of the Scheme is to ensure comprehensive care and protection of Children in a sustained manner.
- Ministry of Women and Child Welfare is the nodal Ministry for looking after the welfare of Children in India.
- The Ministry has been entrusted with the responsibility of anchoring the PM CARES for Children scheme, in collaboration with other stakeholder.
- The scheme will be funded by the PM Cares fund.
- It will provide a monthly stipend to each child from the age of 18 years, and a lump sum amount of Rs. 10 lakh on attaining the age of 23.
- Benefits also include an annual scholarship of Rs 20,000 for school students and monthly financial support of Rs 4,000 for daily needs.
- Health coverage will be given through the Ayushman Card, and counselling through the Samvad helpline for psychological and emotional help.
- Different guidelines have been mentioned for the care of children under different age brackets.
- Till six years of age, children will receive support from Anganwadi services for supplementary nutrition, pre-school education.
- For children below 10 years of age, admission shall be provided in any nearest school –
  o Government/government-aided school/Kendriya Vidyalayas (KVs)/ private schools – as a day scholar.
  o In private schools, tuition fees will be exempted.
- Additionally, the scheme will help place the orphaned children either in the care of relatives and family,

Or with Child Care Institutions (CCIs), or in a Sainik School, Navodaya Vidyalaya, or other residential schools.

- Applications for enrollment under the scheme were to be submitted via the online portal – pmcaresforchildren.in
- Child Welfare Committees have been tasked with gathering facts about each case and recommending the child as a beneficiary to the District Magistrate (DM).
- The DM will then accept or reject the application and if accepted, the relevant bank accounts will be opened.

Children Benefits	Financial Support - Amount of Rs 10 lakh for all children	Support for boarding & Lodging - Rehabilitation of all children	Assistance for School Education - Admission in schools
	Assistance for Higher Education - Educational loans for higher education	Health Insurance - Health insurance cover of Rs 5 lakhs	Scholarship - Rs 20,000 for all school going children

National Air Sports Policy

The Minister of Civil Aviation launched National Air Sport Policy 2022 (NASP 2022).

- NASP 2022 lays out the vision of making India as one of the top sports nations by 2030.

Key Points

- Air sports, as the names suggests, encompasses various sports activities involving the medium of air.
- These include sports like air-racing, aerobatics, aero modeling, hang gliding, paragliding, para motoring and skydiving etc.
- It has a growing culture for adventure sports and aviation.
- The NASP 2022, is a step in this direction.
- The policy will cover the following air sports in India:
    o Aerobatics
    o Aero modeling and model rocketry
    o Amateur-built and experimental aircraft
    o Ballooning
    o Drones
    o Gliding and powered gliding
    o Hang gliding and powered hang gliding
    o Parachuting (including skydiving, BASE jumping and wing suits etc.)
    o Paragliding and para motoring (including powered parachute trikes etc.)
    o Powered aircraft (including ultra-light, micro light and light sports aircraft etc.)
    o Rotorcraft (including autogyro)
- Under the new policy, there will be four-tier governance structure for air sports in India namely:
    o Air Sports Federation of India (ASFI) as the apex governing body.
    o National associations for individual air sports or a set of air sports, as appropriate
    o Regional (e.g. West/ South/ North East etc.) or State and Union Territory level units of the national air sports associations, as appropriate; and
    o District-level air sports associations, as appropriate.
- The policy aims to attract air sports enthusiasts from all over the world, especially those who live in areas where harsh winters prevent them from participating.

Election to the Office of President of India

The term of office of Shri Ram Nath Kovind, President of India, is ending on 24th July, 2022.

- As per Article 62 of the Constitution of India, an election to fill the vacancy of the office of outgoing President is required to be completed before the expiration of the term.

About the Office of President of India

- The Union executive consists of the President, the Vice-President, the Prime Minister, the council of ministers and the attorney general of India.
- The President is the head of the Indian State.
- He is the first citizen of India and acts as the symbol of unity, integrity and solidarity of the nation.

Election of the President (Article 54)

- The President is elected not directly by the people but by members of electoral college consisting of:
    o the elected members of both the Houses of Parliament;
    o the elected members of the legislative assemblies of the states; and
    o the elected members of the legislative assemblies of the Union Territories of Delhi and Puducherry.
- Thus, the nominated members Parliament and the state legislative assemblies, do not participate in the election of the President.
- Where an assembly is dissolved, the members cease to be qualified to vote in presidential election.
- The President's election is held in accordance with the system of proportional representation by means of the single transferable vote (Article 55).
- The voting is by secret ballot.
- All doubts and disputes in connection with election of the President are inquired into and decided by the Supreme Court whose decision is final.
- The election of a person as President cannot be challenged on the ground that the Electoral College was incomplete.
- If the election of a person as President is declared void by the Supreme Court,
    o acts done by him before the date of such declaration of the Supreme Court are not invalidated and continue to remain in force.

Qualifications for Election as President

A person to be eligible for election as President should fulfil the following qualifications:

- He should be a citizen of India.
- He should have completed 35 years of age.
- He should be qualified for election as a member of the Lok Sabha.
- He should not hold any office of profit under the Union government or any state government or any local authority or any other public authority.

Note: A sitting President or Vice-President of the Union, the Governor of any state and a minister of the Union or any state is not deemed to hold any office of profit and hence qualified as a presidential candidate.

Term of President's office

- The President holds office for a term of five years from the date on which he enters upon his office.
- However, he can resign from his office at any time by addressing the resignation letter to the Vice-President.
- Further, he can also be removed from the office before completion of his term by the process of impeachment.
- The President can hold office beyond his term of five years until his successor assumes charge.
- He is also eligible for re-election to that office.

Note: Article 324 of the Constitution vests the superintendence, direction and control of the conduct of election to the office of the President of India in the Election Commission of India.

Improve Earthquake Resistance of Structures

Researchers have developed low-cost buckling-restrained braces that can give improved protection to constructions from earthquakes.

- These braces have several advantages, such as all-steel components, onsite fabrication and assembling process, post-earthquake inspection, and easy replacement.

Key Points

- The earthquake resistance of civil structures is often improved by using seismic force-resisting systems or vibration control devices.
- Buckling-restrained braces are the special structural elements that serve both purposes.
- Researchers at IIT Delhi have fabricated novel hybrid buckling-restrained braces (HBRBs) having higher strength, excellent ductility, and better energy dissipation potential.
- These braces can be customized depending on the seismic demand expected on buildings or bridges located in different seismic zones of India.
- The proposed technology is effective in the new constructions.
- It also has a great potential for the upgradation and retrofitting of seismically deficient reinforced concrete (RC) and steel framed structures.
- These braces can also be conveniently adopted in the steel and concrete bridges to enhance their earthquake resistance.
- The implementation of this technique in the existing structures reduces overall retrofitting cost and minimizes the intervention and downtime.

In Image: Full-scale hybrid buckling-restrained brace.

World Bee Day

On World Bee Day celebrations, the Union Agriculture Minister stated that the government is working tirelessly to bring about a "Sweet Revolution" in the country.
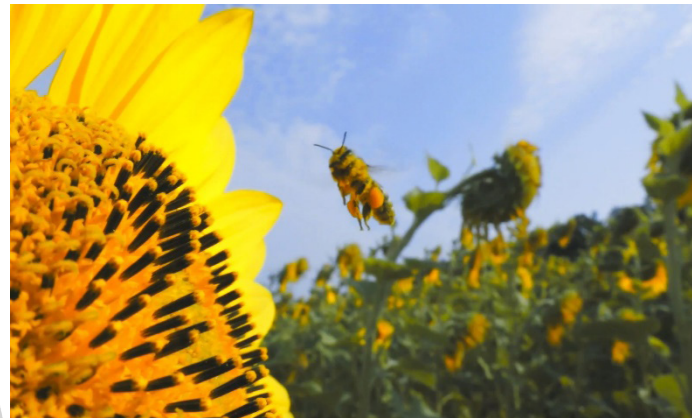
About World Bee Day

- Slovenia proposed that the United Nations (UN) proclaim 20 May as World Bee Day.
- On 20 December 2017, the UN Member States unanimously approved Slovenia's proposal and 20 May was proclaimed World Bee Day.

Note: Bees are some of the most important pollinators, ensuring food and food security, sustainable agriculture, and biodiversity.

Why do we need pollinators?

- Pollinators allow many plants, including many food crops, to reproduce.
- Indeed, the food that we eat, such as fruits and vegetables, directly relies on pollinators.
- Pollinators not only help ensure the abundance of fruits, nuts, and seeds, but also their variety and quality, which is crucial for human nutrition.
- The vast majority of flowering plant species only produce seeds if animal pollinators move pollen from the anthers to the stigmas of their flowers.
- Without this service, many interconnected species and processes functioning within the

The term MIS 3 refers to the alternating warm and cool periods that occurred during the Earth's Paleoclimate found through oxygen isotope data reflecting temperature fluctuations.

ecosystem would collapse.

- Pollination is therefore a keystone process, in both human managed and natural terrestrial ecosystems.
- Almost 90% of wild plants and 75% of leading global crops depend on animal pollination.
- One out of every three mouthfuls of our food depends on pollinators such as bees.
- Crops that depend on pollination are five times more valuable than those that do not.
- The diversity of pollinators have a direct and positive impact on crop yields.
- Bees and other pollinating insects are, in fact, improving the food production of 2 billion small farmers worldwide.

It's a *bee* thing (or not)

There are **different pollinators species** in the world, such as butterflies, birds and bats!

The most popular ones are **bees**. There are between 25,000 to 30,000 species.

Why should you care about pollinators?

Nearly 90 per cent of all wild flowering plants depend at least to some extent on animal pollination.

Pollinators **affect 35 percent of global agricultural land**.

Caring for bees and other pollinators is part of the fight **against world hunger**.

Ensuring biodiversity among these species is **crucial to build resilience** in agroecosystems and adapt to climate change.

About Bees

- Like all insects, a bee's body is divided into three parts: a head with two antennae, a thorax with six legs, and an abdomen.
- There are over 20,000- 25000 bee species worldwide, including the honey bee.
- Wild bee species live on every continent ex-

cept Antarctica.

- Bees feed exclusively on sugary nectar and protein-rich pollen from flowering plants, unlike the carnivorous wasps from which they evolved.
- Social bees, such as honeybees and bumblebees, often live in hives, above or below the ground, while most solitary bees nest in the ground.
- Bees can be found in so many locations, including marshes, shingle, sand dunes, soft cliffs etc.

78th Commission Session of UN-ESCAP

The seventy-eighth session of the Economic and Social Commission for Asia and the Pacific (ESCAP) was held at the United Nations Conference Centre in Bangkok and online.

- It is guided by the theme "A common agenda to advance sustainable development in Asia and the Pacific".

Key Points

- The theme study for the 78th Commission session describes pathways to achieve more inclusive and sustainable post-pandemic recovery.
- It identifies elements for a common agenda for present and future generations centred on the following:
  o protecting people and the planet,
  o leveraging digital opportunities,
  o trading and investing more together,
  o raising financial resources and
  o managing debt.
- ESCAP will also be commemorating the seventy-fifth anniversary of its establishment in 2022.

About UN-ESCAP: Background

As the world began to recover from the devastation of World War II, many post-colonial countries in Asia and the Pacific began their process of development.

- As a forum for regional collaboration, the Economic Commission for Asia and the Far East (ECAFE) was established in Shanghai.
- Primary objective was to focus on economic development and post-war reconstruction in Asia and the Far East.
- As time moved on, ECAFE extended its membership and formed institutions key to the continued growth of the region such as:
  o the Asian Development Bank, Asian Highway Network and the Mekong Committee.
- By 1976, ECAFE had changed its name to

the Economic and Social Commission for Asia and the Pacific (ESCAP) to reflect the diversity of its membership, and increased scope of work.

- ESCAP is the most inclusive intergovernmental platform in the Asia-Pacific region.
- The Commission promotes cooperation among its 53 member States and 9 associate members in pursuit of solutions to sustainable development challenges.
- ESCAP is one of the five regional commissions of the United Nations.

Smart material which responds to light stimulus

Scientists have developed a smart material which responds to light stimulus easily by converting light into thermal energy.

- This can be helpful for harnessing solar energy for applications in soft robotics and micro-electromechanical systems (MEMS) devices.

Key Points

- Many smart materials have successfully replicated stimuli-responsive behaviour seen in abundance in nature like in Venus flytrap, pine cone, etc.
- Liquid crystal polymer networks (LCNs) is one of such smart material.
- On application of heat, a uniformly aligned LCN film undergoes a reversible 2- or 3-dimensional shape change.
- By manipulating the average orientation of the rod-shaped LC molecules, various shape deformations like bending, curling, etc. can be attained.
- However, previously known devices needed additional layers to the photo-responding film to achieve bi-directional actuation—converting external energy to motion.
- As a solution to this problem, researchers at the Centre for Nano and Soft Matter Sciences (CeNS), Bengaluru have fabricated spatially splay-deformed (spread out) LCN films.
    - This has been done by crosslinking a mixture of mono-functional and bi-functional liquid crystal mesogens (a chemical compound).
- This new development has removed the need of additional layers to achieve bi-directional actuation.

Greater Panna Landscape Released

The final report of Integrated Landscape Management Plan for Greater Panna Landscape was released.

- This integrated landscape management plan has been prepared in respect of Ken-Betwa Link Project by Wildlife Institute of India (WII).

Key Points

- The Integrated Landscape Management Plan provides for better habitat protection, and management of flagship species such as Tigers, Vultures, and Gharial.
- It will help to holistically consolidate the landscape for biodiversity conservation and human well-being, especially forest dependent communities.
- It is expected to enhance tiger carrying capacity in the landscape.
    - By strengthening connectivity with Nauradehi wildlife sanctuary and Durgavati wildlife sanctuary in MP and Ranipurwildlife sanctuary in UP.

About Panna Tiger Reserve

Situated in the Vindhyan mountain range in the northern part of Madhya Pradesh, Panna Tiger Reserve is spread over the Panna and Chhatarpur districts.

- Panna is the twenty second Tiger Reserve of India and fifth in Madhya Pradesh.
- Panna National Park was created in 1981.
- It was declared a Project Tiger Reserve by Government of India in 1994.
- This reserve contains the last remaining tiger habitat of North Madhya Pradesh.
- Flowing from the south to the north through the reserve is the River Ken.
- The reserve is also dotted with two thousand year-old rock paintings.

Lifestyle for the Environment- LiFE Movement

Prime Minister of India recently launched a global initiative called 'Lifestyle for the Environment - LiFE

Movement'.

- It aims to solve the challenge faced by our planet using human-centric, collective efforts and robust action that further sustainable development.

About LiFE Movement

- The launch will initiate 'LiFE Global Call for Papers' inviting ideas and suggestions from academics, universities & research institutions etc.
  - o Objective: to influence and persuade individuals, communities and organisations across the world to adopt an environment-conscious lifestyle.
- This global initiative was proposed by PM of India at COP26 last year.
- The vision of LiFE is to live a lifestyle that is in tune with our planet and does not harm it.
  - o Reduce, Reuse and Recycle as a concept will be an integral part of the movement.
  - o The idea of Circular Economy and its implementation will also play a key role.
- The LiFE Movement aims to utilise the power of collective action and nudge individuals across the world to undertake simple climate-friendly actions in their daily lives.
- Mission plans to create and nurture a global network of individuals, namely 'Pro-Planet People' (P3).
  - o They will have a shared commitment

to adopt and promote environmentally friendly lifestyles.
- Through the P3 community, the Mission seeks to create an ecosystem that will reinforce and enable environmentally friendly behaviours to be self-sustainable.

'Save Soil' Programme

Save Soil is a global movement launched by Sadhguru and Isha Foundation, to address the soil crisis by bringing together people from around the world to stand up for Soil Health.

- On World Environment Day, Prime Minister also attended a programme on 'Save Soil Movement'.

What is Save Soil?

- Save Soil – a Global Movement to invoke a conscious approach to soil and planet in all.
- One of the main objectives of the movement is to show governments across the world that their citizens want policies that revitalize ecology and soil.
- Goal: Asking the leaders of all nations to institute national policies and actions toward increasing the organic content in cultivable Soil.

Why Save Soil- What is the Crisis?

- Agriculture, deforestation, and other factors have degraded and eroded topsoil at alarming rates.
- Globally, 52% of agricultural land is already degraded.

SOIL DEGRADATION - A GLOBAL ISSUE

The United States has lost **50%** of its topsoil

52% of the world's agricultural soil has already degraded

In European agricultural nations, **75-85%** of soil has less than **2%** organic content

62% of India's soil has less than **0.5%** organic content

| 0 - 20 (very low) | 20 - 40 (low) | 40 - 70 (medium) | 70 - 90 (high) | > 90 (very high) |
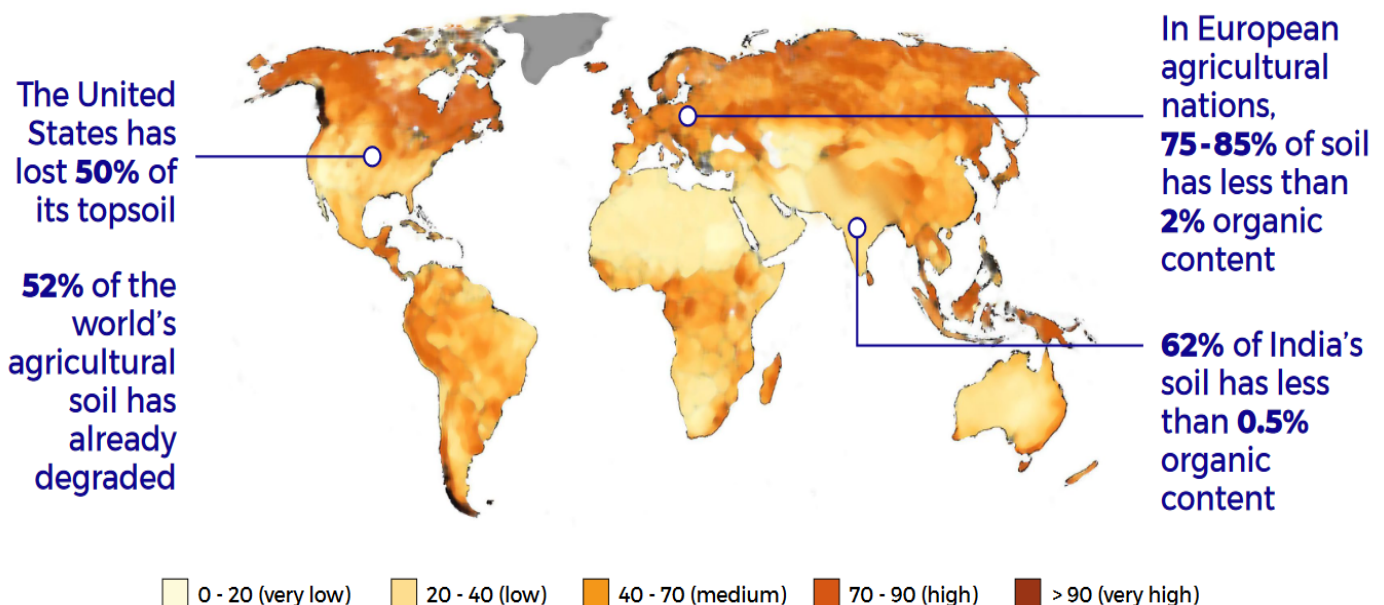
- Food Crisis:
  - In 20 years, 40% less food is expected to be produced for 9.3 billion people.
  - Poor soil leads to poor nutritional value.
  - Today's fruits and vegetables already contain 90% fewer nutrients.
  - 2 billion people suffer from nutritional deficiencies leading to multitude of diseases.
- Water Scarcity:
  - Depleted soils cannot absorb and regulate water flows.
  - Lack of water retention leads to water scarcity, droughts & floods.
  - Organic matter can hold up to 90% of its weight in water and release it slowly over time.
  - This is a big help in drought-prone areas.
- Loss Of Bio-Diversity:
  - Scientists say that around 27000 species of life forms are becoming extinct every year due to loss of habitat.
  - The crisis has reached a point where 80% of the insect biomass has gone.
  - Loss of biodiversity further disrupts the soil habitat and prevents soil regeneration.
- Climate Change:
  - Carbon stored in soil is 3x that in living plants, and 2x that in the atmosphere, which means soil is crucial for carbon sequestration.
  - If the world's soils are not revitalized, they could release 850 billion tonnes of carbon dioxide into the atmosphere contributing to climate change.
  - This is more than all of humanity's emissions in the last 30 years combined.
- Loss Of Livelihood:
  - Thousands of farmers are committing suicide due to depletion in soil.
  - 74% of the poor are directly affected by land degradation globally.
  - It is estimated that soil extinction is costing the world up to US$ 10.6 trillion every year.
- Conflict and Migration:
  - Population growth, and food and water scarcity could cause over 1 billion to migrate to other regions and countries by 2050.
  - Land issues have played a significant role in over 90% of major wars and conflicts in Africa since 1990.
- Globally around 24 billion tons of fertile soil and 27,000 bio-species are lost each year.

What is the Solution?

- Bring back at least 3-6% organic content in the soil.
- Ways to increase the organic content in soil:
  - Bring agricultural land under vegetation and shade
  - Enrich the soil through plant litter and animal waste
- Food grain production can increase by 1.3% every year, if Carbon in soil is increased by just 0.4%.

Note: Save Soil Addresses 12 SDGs of the 17 total United Nations Sustainable Development Goals.

About Soil

- Soil is by far the most biologically diverse part of Earth.
- Soil is a mixture of minerals, dead and living organisms (organic materials), air, and water.
- A teaspoon of soil can contain more organisms than there are humans living on Earth.
- The organisms interact with one another and with plants and small animals forming a web of biological activity which plays a key role in nutrient cycling.

World Environment Day 2022

World Environment Day on 5 June is the biggest international day for the environment.

- It is led by the United Nations Environment Programme (UNEP) and held annually since 1973.

Key Points

- World Environment Day is a global platform for inspiring positive change.
- Each year, World Environment Day is hosted by a different country where the official celebrations take place.
  - The host country for 2022 is Sweden.
- Theme: "Only One Earth" is the campaign slogan, with the focus on "Living Sustainably in Harmony with Nature".
- 2022 is a historic milestone for the global environmental community.
  - It marks 50 years since the 1972 United Nations Conference on the Human Environment (UNCHE).
  - The 1972 Conference is seen as the first international meeting on the environment.

About 1972 Stockholm Conference

The 1972 United Nations Conference on the Environment in Stockholm was the first world conference to make the environment a major issue.

- One of the major results of the Stockholm conference was the creation of the United Nations Environment Programme (UNEP).
- The participants adopted a series of principles for sound management of the environment.
  - This including the Stockholm Declaration and Action Plan for the Human Environment.

Leaders in Climate Change Management Program

National Institute of Urban Affairs (NIUA) and World Resources Institute (WRI) India, jointly announced 'Leaders in Climate Change Management' (LCCM), a practice-based learning program.

- It aims at building capacity among urban professionals to lead climate action across sectors and geographies in India.

Key Points

- LCCM envisions capacitating 5,000 professionals, including mid to junior-level government officials and frontline workers.
- These professionals will be prepared to champion climate change adaptation and mitigation solutions towards a coordinated effort to achieve India's climate commitments.
- LCCM is a blended learning program for urban practitioners looking to upskill and prepare themselves to deliver effective climate action.
- The program has four phases:
  - the first phase- is an online learning module that can be completed over eight weeks;
  - the next includes face-to-face sessions spanning four to six days;
  - the third phase mandates participants to complete a project over six to eight months and attending exposure visits; and
  - the final phase includes networking and establishing a community of practice.
- The online learning will be hosted on the National Urban Learning Platform (NULP), the capacity building arm of NIUA.

About NIUA

The National Institute of Urban Affairs (NIUA) is India's leading national think tank on urban planning and development.

- NIUA seeks to provide innovative solutions to address the challenges of a fast-urbanizing India.
- It also aims to pave the way for more inclusive and sustainable cities of the future.
- NIUA was appointed as an apex body to support and guide the Government of India in its urban development plans in 1976.
- The work of NIUA addresses 6 major thematic concerns:
  - Urbanization & Economic Growth
  - Urban Governance (Digital) & Municipal Finance
  - Urban Infrastructure & Built Environment
  - Environment, Climate Change & Resilience
  - Social Development (Inclusive and sustainable cities)

Glacial advances in the Yankti Kuti Valley

The oldest known glacial advance from Uttarakhand was observed in the central Himalayas' Yankti Kuti valley.

- The glacier is located in the extreme eastern part of the state.

Key Points
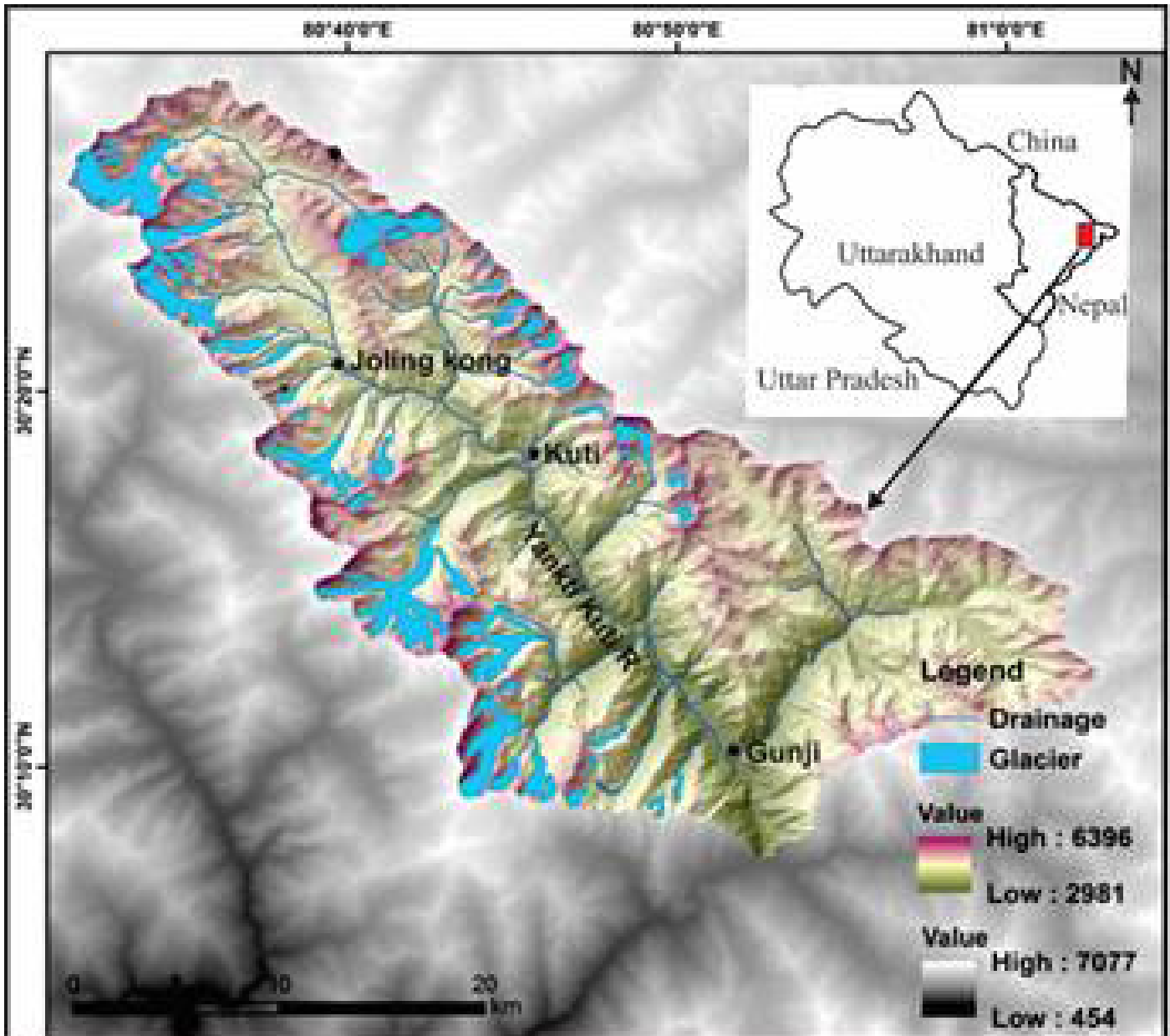
- Through geomorphological mapping, the scientists were able to identify four events of glaciation that happened during the past 52,000 years (MIS 3).

These events that show glacial advances over thousands of years synchronize with climate variability.

- A study conducted by a group of scientists from the Wadia Institute of Geological Sciences revealed that the moisture-deprived valleys in the Himalayas react sensitively to precipitation.
- The study provided a robust timeline of the events that occurred during the MIS 3 period.
- Earlier, many researchers have provided information on the nature of glaciation in the Central Himalayas by employing various modern dating methods.
- However, the chronological data for glacial landforms in the Central Himalayas is still limited due to the inaccessibility of these regions.
- Thus the correlation between the Indian summer monsoon and the glacier advance and westerlies in the region remains unclear.
- The findings of this study could help improve the understanding of the relationship between the climate and glacier dynamics in the Himalayas.
- This will also help climatologists to find out how the Indian summer monsoon and westerlies can influence the development of the glaciers in the Central Himalayan region.

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    - Social Development (Inclusive and sustainable cities)

Green Energy Open Access

In order to further accelerate our ambitious renewable energy programmes, Green Open Access Rules, 2022 have been notified.

- These rules are notified for promoting generation, purchase and consumption of green energy including the energy from Waste-to-Energy plants.

Key Points

- The notified Rules enable simplified procedure for the open access to green power.
- It will enable faster approval of Green OA, Uniform Banking, Voluntary purchase of RE power by commercial & industrial consumers, Applicability of OA charges etc.
- Commercial and Industrial consumers are allowed to purchase green power on voluntarily basis.
- Captive Consumers can take power under Green Open Access with no minimum limitation.
- Discom Consumers can demand for supply of Green power to them.

The salient features of the Rules

- The Green Open access is allowed to any consumer.
    - The limit of Open Access Transaction has been reduced from 1 MW to 100 kW for green energy.
    - This will enable small consumers also to purchase renewable power through open access.
- Provide certainty on open access charges to be levied on Green Energy Open Access Consumers.
    - Cap on increasing of cross-subsidy surcharge as well as the removal of additional surcharge.
    - This will not only incentivise the consumers to go green but also address the issues that have hindered the growth of open access in India.
- Transparency in the approval process of the open access application.
    - Approval to be granted in 15 days or else it will be deemed to have been approved subject to fulfilment of technical requirements.
    - It will be through a national portal.
- Determination of green tariff: The tariff for the green energy shall be determined separately by the Appropriate Commission.
- The Rules will help to streamlining the over-

all approval process for granting Open Access including timely approval.

- Banking of surplus green energy with the distribution licensee mandated.
- Consumers will be given the green certificates if they consume green power.
- Cross subsidy surcharge and additional surcharge shall not be applicable if green energy is utilized for production of green hydrogen and green ammonia.

What is Green Energy?

- Green energy is any energy type that is generated from natural resources, such as sunlight, wind or water.
- It often comes from renewable energy sources although there are some differences between renewable and green energy.

- The key with these energy resources are that they don't harm the environment through factors such as releasing greenhouse gases into the atmosphere.
- While most green energy sources are also renewable, not all renewable energy sources are considered entirely green.
- Take, for example, hydropower.
- While hydropower – energy generated from fast-flowing water – is renewable.
    o Some people argue that the process of generating vast amounts of power from water is not actually green.
    o This is because of the industrialisation and deforestation involved in the process of building large hydro dams.

U.S. ELECTRICITY SUPPLY (NOT TO SCALE)

Conventional Power		Renewable Energy	Green Power		
Coal	Nuclear	Large Hydropower	Wind	Solar	Biomass
Oil	Natural Gas	Municipal Solid Waste	Geothermal	Biogas	Low-Impact Hydropower
Least Beneficial		**More Beneficial**	**Most Beneficial**		
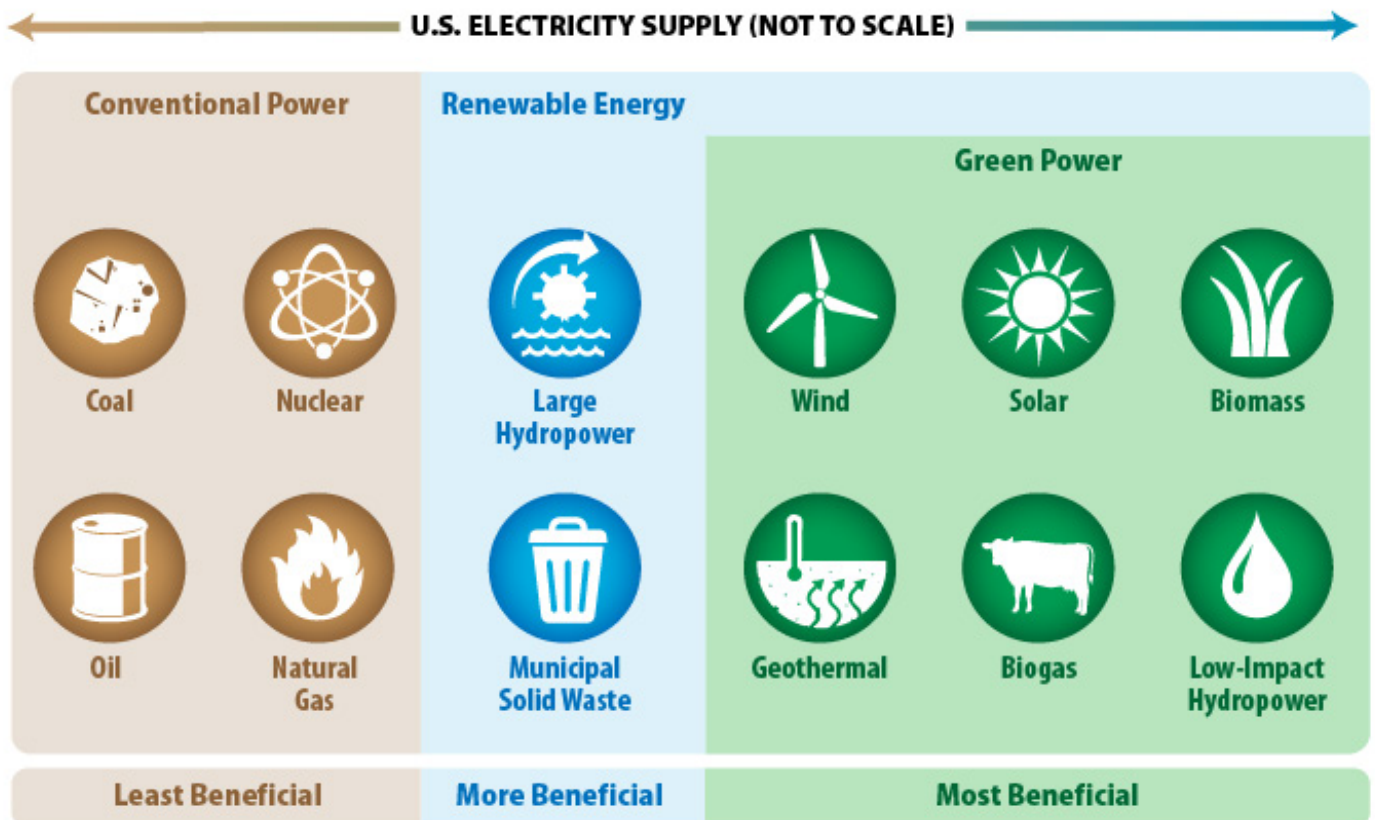
4th meeting of National Startup Advisory Council (NSAC)

The Minister of Commerce and Industry, Consumer Affairs, Food and Public Distribution and Textiles, chaired the 4th meeting of National Startup Advisory Council (NSAC).

- Minister urges NSAC to focus on tier-2 and tier-3 cities for VC funding, capacity building and awareness generation on government schemes that promote startups.

About National Startup Advisory Council (NSAC)

- Department for Promotion of Industry and Internal Trade (DPIIT) had constituted the National Startup Advisory Council.
- The objective is to advise the Government on measures needed to build a strong ecosystem for nurturing innovation and startups in the country.
- Goal: to drive sustainable economic growth and generate large scale employment opportunities.
- Chairman: Minister for Commerce & Industry.
- Convener of the Council: Joint Secretary, Department for Promotion of Industry and Internal Trade.
- It is a one of its kind congregation wherein the policy making process is driven as part of collaboration between all the key stakeholders of the Startup ecosystem.
- Besides the ex-officio members, the council has non-official members, representing various stakeholders such as:
  - o founders of successful startups,
  - o veterans who have grown and scaled companies in India,
  - o persons capable of representing interests of investors,
  - o incubators and accelerators into startups,
  - o representatives of associations of stakeholders of startups and representatives of industry associations.

GeM, CSC and India Posts sign MoU

Government eMarketplace [GeM], CSC e-Governance Services India Ltd. [CSC-SPV], and Department of Posts, inked a Memorandum of Understanding [MoU].

- MoU is for the advocacy, outreach, mobilization and capacity-building of last-mile Govt buyers, sellers and service providers in public procurement.

Key Points

- The MoU was conceived after the successful integration of GeM and India Post in May 2022.
- With this integration, it is now possible for all last-mile Govt buyers, sellers and service-providers to avail the logistics services and facilities over GeM through the India Post facilities located in the remotest parts of India.
- Nearly 4.5 lakh+ Common Service Centers [CSC] and approx. 1.5 lakh+ India Post offices across India will be trained.
- They will provide assistance for last-mile Govt buyers, sellers and service providers on GeM portal.

What is Government e-Marketplace (GeM)?

Government e-Marketplace (GeM) is a one stop portal to facilitate online procurement of common use Goods & Services required by various Government Departments / Organizations / PSUs.

- GeM aims to enhance transparency, efficiency and speed in public procurement.
- The portal was launched on 9th August 2016 by the Commerce & Industry Minister.
- It provides the tools of e-bidding, reverse e-auction and demand aggregation to facilitate the government users achieve the best value for their money.
- The purchases through GeM by Government users have been authorized and made mandatory by Ministry of Finance.
- GeM is a completely paperless, cashless and system driven e-market place that enables procurement of common use goods and services with minimal human interface.

Ministry of Heavy Industries Signs a MoU with NRDC

Ministry of Heavy Industries (MHI) has signed a MoU with National Research Development Corporation (NRDC).

- This is for undertaking various activities for smooth implementation of the Scheme for Enhancement of Competitiveness in the Indian Capital Goods Sector.

Key Points

- As per the MoU, NRDC will conduct the activities like:
    o evaluation and review of the scheme,
    o management of intellectual property rights and
    o commercialization support for the products developed under Capital Goods Scheme Phase-I & II, etc. on behalf of MHI.

About Capital Goods Scheme

- Ministry of Heavy Industries (MHI) had notified the Scheme on Enhancement of Competitiveness in the Indian Capital Goods Sector- Phase-II.
- It was meant for providing assistance to Common Technology Development and Services Infrastructure.
- The scheme has a financial outlay of Rs. 1207 crores with budgetary support of Rs.975 crore and Industry Contribution of Rs.232 crore.
- The objective of Phase II of the Scheme is to expand and enlarge the impact created by Phase I pilot scheme.
    o With an aim of creating of a strong and globally competitive capital goods sector that contributes at least 25% to the manufacturing sector.
- There are six components under the Scheme for Enhancement of Capital Goods Sector Phase II, namely:
    o Identification of Technologies through Technology Innovation Portals;
    o Setting up of four New Advanced Centres of Excellence and augmentation of Existing Centres of Excellence;
    o Promotion of skilling in Capital Goods Sector–creation of Qualification packages for skill levels 6 and above;
    o Setting up of four Common Engineering Facility Centres (CEFCs) and augmentation of existing CEFCs;
    o Augmentation of Existing Testing and Certification Centres;
    o Setting up of ten Industry Accelerators for Technology Development.

Export of sugar and Ethanol Production

Export of sugar in current sugar season 2021-22 is 15 times of export as compared to export in sugar season 2017-18.

- The major importing countries are Indonesia, Afghanistan, Sri Lanka, Bangladesh, UAE, Malaysia and African Countries.

Key Points

- In sugar seasons 2017-18, 2018-19 & 2019-20, about 6.2 LMT, 38 LMT & 59.60 LMT of sugar was exported.
- In sugar season 2020-21 against target of 60 LMT about 70 LMT have been exported.
- Also, in order to find a permanent solution to address the problem of excess sugar, Government is encouraging sugar mills to divert excess sugarcane to ethanol.
- Government has fixed target of 10% blending of fuel grade ethanol with petrol by 2022 & 20% blending by 2025.
- Till year 2014, ethanol distillation capacity of molasses-based distilleries was only about 215 cr litres.
- However, in past 8 years due to the policy changes, the capacity of molasses-based distilleries has been increased to 569 cr litres.
- Capacity of grain-based distilleries which was 206 cr ltrs in 2014 has increased to 298 cr ltrs.
- Thus, the total ethanol production capacities have increased from 421 cr ltrs to 867 cr ltrs in 8 years.
- Supply of ethanol to OMCs (Oil Marketing Companies) was only 38 crore litres with blending levels of only 1.53 % in ethanol supply year (ESY) 2013-14.
- Production of fuel grade ethanol and its supply to OMCs has increased by 8 times from 2013-14 to 2020-21.
- In ethanol supply year 2020-21 (December - November), about 302.30 cr ltrs of ethanol has been supplied to OMCs.
    o This has led to achieving 8.1% blending levels, which is historically highest.
- In the current ESY 2021-22, about 186 cr ltrs ethanol have been blended with petrol till 08.05.2022 thereby achieving 9.90% blending.
- With a view to support sugar sector, the Government has also allowed production of ethanol from B-Heavy Molasses, sugarcane juice, sugar syrup and sugar.
- Government has been fixing remunerative ex-mill price of ethanol derived from C-heavy & B-heavy molasses & ethanol derived from sugarcane juice/ sugar/ sugar syrup for ethanol season to encourage mills to divert excess sugarcane to ethanol.

- In sugar season 2021-22, it is likely that about 35 LMT of excess sugar would be diverted to ethanol.
- By 2025, it is targeted to divert more than 60 LMT of excess sugar to ethanol.
    - This would solve the problem of high inventories of sugar, improve liquidity of mills thereby help in timely payment of cane dues of farmers.
- To increase production of fuel grade ethanol, Govt. is also encouraging distilleries to produce ethanol from maize & rice available with FCI.
- Government has fixed remunerative price of ethanol from maize & FCI rice.
- In normal Sugar Season (October- September), production of sugar is around 340-350 Lakh Metric Tonne (LMT) as against the domestic consumption of 270-280 LMT.
    - This results in huge carry over stock of sugar with mills.
    - Due to excess availability of sugar in the country, the ex-mill prices of sugar remain subdued & even fell around Rs. 24-26 / kg.
    - This was even below the cost of production of sugar resulting in cash loss to sugar mills.
    - This excess stock of 70 LMT also leads to blockage of funds & affects the liquidity of sugar mills resulting in accumulation of cane price arrears.
    - With a view to prevent cash loss to sugar mills caused due to subdued sugar prices, Government in June, 2018 had introduced the concept of Minimum Selling Price (MSP) of sugar.

Impact on country's economy due to 20% Ethanol blending

- It would benefit maize & paddy farmers, would addresses surplus grain problem; about 165 lakh tons of grains will be utilized.
- Diversion of 60 lakh tons of surplus sugar would address the problem of surplus sugar.
    - This checks depressed sale of sugar, improves liquidity of sugar mills and will ensure timely payment of cane dues of farmers.
- It will bring new investment opportunities as about Rs. 41,000 crore would be invested to set up new distilleries in rural areas & would result in job creation in villages.
- Would improve air quality, reduces Carbon Monoxide emission by 30-50% & Hydrocarbon by 20%.
- Would save foreign exchange of more than Rs. 40,000 cr on account of crude oil import bill.

- It would also reduce dependence on imported fossil fuel thereby would help in achieving the goal of Atmanirbhar Bharat in petroleum sector.

About Sugarcane

Sugarcane (Saccharum officinarum) family Gramineae (Poaceae) is widely grown crop in India.

- It provides employment to over a million people directly or indirectly besides contributing significantly to the national exchequer.
- Sugarcane growing countries of the world lay between the latitude 36.7° north and 31.0° south of the equator extending from tropical to subtropical zones.
- Broadly there are two distinct agro-climatic regions of sugarcane cultivation in India, viz., tropical and subtropical.
- Tropical region Shared about 45% and 55% of the total sugarcane area and production in the country respectively.
    - Sub-tropical region accounted for about 55% and 45% of total area and production of sugarcane respectively.
- The tropical sugarcane region consists of:
    - Maharashtra, Andhra Pradesh, Tamil Nadu, Karnataka, Gujarat, Madhya Pradesh, Goa, Pondicherry and Kerala.
- Sub-tropical sugarcane region:
    - U.P., Bihar, Haryana and Punjab comes under this region.
- Climatic requirement:
    - The different critical stages are germination, tillering, early growth, active growth and elongation.
    - Optimum temperature for sprouting (germination) of stem cuttings is 32° to 38°c.
    - It slows down below 25°, reaches plateau between 30°-34°.
    - Temperatures above 38° reduce the rate of photosynthesis and increase respiration.
    - For ripening, however, relatively low temperatures in the range of 12° to 14° are desirable.
- The sugarcane productivity and juice quality are profoundly influenced by weather conditions prevailing during the various crop-growth sub-periods.
- Sugar recovery is highest when:-
    - the weather is dry with low humidity;
    - bright sunshine hours,
    - cooler nights with wide diurnal variations and very little rainfall during ripening period.
    - These conditions favour high sugar ac-

cumulation.

- The climatic conditions like very high temperature or very low temperature deteriorate the juice quality and thus affecting the sugar quality.
- Favourable climate like warm and humid climate favour the insect pests and diseases, which cause much damage to the quality and yield of its juice and finally sucrose contents.

FDI inflow in India

India has recorded highest ever annual FDI inflow of USD 83.57 billion in the Financial Year 2021-22.

- In 2014-2015, FDI inflow in India stood at 45.15 USD billion.

Key Points

- India is rapidly emerging as a preferred country for foreign investments in the manufacturing sector.
    - o FDI Equity inflow in Manufacturing Sectors have increased by 76% in FY 2021-22 (USD 21.34 billion) compared to previous FY 2020-21 (USD 12.09 billion).
- It may be noted that FDI inflow has increased by 23% post-Covid (March, 2020 to March 2022: USD 171.84 billion).
    - o In comparison to FDI inflow reported pre-Covid (February, 2018 to February, 2020: USD 141.10 billion) in India.
- In terms of top investor countries of FDI Equity inflow, 'Singapore' is at the apex with 27%, followed by U.S.A (18%) and Mauritius (16%).
- 'Computer Software & Hardware' has emerged as the top recipient sector of FDI Equity with

around 25% share.
- o This is followed by Services Sector (12%) and Automobile Industry (12%) respectively.
- Karnataka is the top recipient state with 38% share of the total FDI Equity followed by Maharashtra (26%) and Delhi (14%).

S. No.	Financial Year	Amount of FDI inflows (in USD billion)
1.	2018-19	62.00
2.	2019-20	74.39
3.	2020-21	81.97
4.	2021-22	83.57

ONGC on Indian Gas Exchange

Oil and Natural Gas Corporation Ltd. (ONGC) has become the first Exploration and Production (E&P) company in India to trade domestic gas on Indian Gas Exchange.

- The gas traded is from ONGC Krishna Godavari 98/2 block.

Key Points

- After the deregulation in gas pricing ecosystem in 2000-21, ONGC has prepared itself to reap the benefits.
- The quantity sold by ONGC through the Gas Exchange will be enhanced slowly.

About Indian Gas Exchange Ltd.

- Indian Gas Exchange Ltd. (IGX) is India's first automated national level Gas Exchange.
- Its aim is to promote and sustain an efficient and robust Gas market and to foster gas trading in the country.
- The exchange features multiple buyers and sellers to trade in spot and forward contracts at designated physical hubs.
- IGX is a neutral and transparent market place where both buyers and sellers trade Gas as the underlying commodity.
- IGX started operations on 15th June 2020 as Gas Trading Platform and has been operating as the Gas Exchange since 10th December 2020.
- The Exchange operates under the regulatory framework of Petroleum and Natural Gas Regulatory Board (PNGRB).

Foreign Investment Facilitation Portal (FIF) completes 5 years

853 FDI proposals have been disposed off through the Foreign Investment Facilitation Portal (FIFP) since abolition of Foreign Investment Promotion

Board (FIPB).

- The proposal for abolition of FIPB was approved by the Union Cabinet in its meeting on 24th May, 2017.

Key Points

- Since the formation of FIFP, not only the FDI has increased so have the number of countries bringing in FDI into India.
- In FY 2014-15, FDI inflow in India stood at mere USD 45.15 billion, which has increased to USD 83.57 billion during the FY 2021-22 despite COVID-19 pandemic.
- During FY 2021-22 FDI has been reported from 101 countries.

About FIFP

- The Foreign Investment Facilitation Portal (FIFP) is the new online single point interface of the Government of India for investors to facilitate Foreign Direct Investment.
- This portal is being administered by the Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce & Industry.
- This portal will continue to facilitate the single window clearance of applications which are through approval route.
- The proposals filed on FIF Portal are forwarded to the concerned Administrative Ministry.
- Upon receipt of the FDI application, the concerned Administrative Ministry/Department shall process the application as per the Standard Operation Procedure (SOP).
- They are also simultaneously marked to Ministry of External Affairs (MEA) and Reserve Bank of India (RBI) for comments.
  - And also to Ministry of Home Affairs (MHA) for necessary security clearance, wherever required as per the FDI Policy/ FEM Regulations.

Import of Paper brought under Compulsory Registration

The import policy of major paper products has been amended from 'Free' to 'Free subject to compulsory registration under Paper Import Monitoring System'.

- A notification to this effect has been issued by Directorate General of foreign Trade (DGFT).

Key Points

- This order shall be applicable on a range of paper products, such as newsprint, handmade paper, wallpaper base, tissue paper, envelops, toilet paper, etc.

- Paper products like currency paper, bank bond and cheque paper, security printing paper, etc. have been excluded from this policy change.
- Domestic paper industry has been raising issues of dumping of paper products in the domestic market.
  - This dumping has been done by way of under-invoicing, entry of prohibited goods by wrong declaration, re-routing goods through other countries, etc.
- The move will also go a long way in promoting Make In India and Atmanirbhar in this category.

New Guidelines of Micro & Small Enterprises Cluster Development Programme

The Government has approved New Guidelines of Micro & Small Enterprises Cluster Development Programme (MSE-CDP).

- The new guidelines will be implemented during 15th Finance Commission Cycle (2021-22 to 2025-26).

Key Points

The scheme aims at enhancing the competitiveness and productivity of Micro & Small Enterprises by undertaking following interventions:

Common Facility Centers (CFCs)

- The central government grant will be restricted to 70% of the cost of project from Rs. 5.00 crore to Rs. 10.00 crore.
  - And 60% of the cost of project from Rs. 10.00 crore to Rs. 30.00 crore.
- In case of NE & Hill States, Island territories, Aspirational Districts, government grant will be 80% of the cost of project from Rs. 5.00 crore to Rs. 10.00 crore.
  - And 70% of the cost of project from Rs. 10.00 crore to Rs. 30.00 crore.
- The project for CFC with project cost more than Rs. 30.00 crore shall also be considered.
  - But the Government assistance would be calculated by taking into account the maximum eligible project cost of Rs.30.00 crore.

Infrastructure Development

- The central government grant will be restricted to 60% of the cost of project from Rs. 5.00 crore to Rs. 15.00 crore for setting up of new Industrial Estate.
- Grant will be 50% of the cost of project from Rs. 5.00 crore to Rs. 10.00 crore for up-gradation of existing Industrial Estate.
- In case of NE & Hill States, Island territo-

ries, Aspirational Districts, grant will be 70% of the cost of project from Rs. 5.00 crore to Rs. 15.00 crore for setting up of new Industrial Estate.

- o And 60% of the cost of project cost from Rs. 5.00 crore to Rs. 10.00 crore for up-gradation of existing Industrial Estate.
- The project for ID with project cost more than Rs. 10.00 crore/15.00 crore can also be considered.
  - o But the government assistance would be calculated by taking into account the maximum eligible project cost of Rs. 10.00 crore/15.00 crore.

NMDC's Best Ever Annual Financial Performance

India's mining major National Mineral Development Corporation (NMDC), under Ministry of Steel registered the strongest ever growth in its history.

- In doing so, the company registered a growth of 24% over last fiscal's production of 34.15 million tonnes.

Key Points

- NDMC produced 42.19 million tonnes and sold 40.56 million tonnes of iron ore during the financial year 2021-22.
- It was strongest ever growth for the company in its history.
- While crossing the 42 million tonne milestone, the largest iron ore producer of the country also delivered the best ever annual financial results.
- In FY22, it recorded a turnover of Rs. 25,882 crore against Rs. 15,370 crore in the previous year, a 68% move upwards.

	Q4		Annual	
	2020-21	2021-22	2020-21	2021-22
Iron Ore Production (MnT)	12.31	13.86	34.15	42.19
Iron Ore Sales (MnT)	11.09	12.29	33.25	40.56
Turnover (Rs. In Crore)	6,848	6,702	15,370	25,882
Profit Before Tax (Rs. In Crore)	4,269	2,880	8,902	12,981
Profit After Tax (Rs. In Crore)	2,838	1,815	6,253	9,398
Dividend (Rs.)	-		7.76	14.74

India's Textiles Exports highest ever in FY 2021-22

India scaled its highest ever exports tally at US$ 44.4 Bn in Textiles and Apparel (T&A) including Handicrafts in FY 2021-22.

- This was a substantial increase of 41% and 26% over corresponding figures in FY 2020-21 and FY 2019-20, respectively.

Key Points

- USA was the top export destination accounting for 27% share, followed by EU (18%), Bangladesh (12%) and UAE (6%).
- In terms of product categories, the export of cotton Textiles was US$ 17.2 Bn with 39% share.
- Export of Ready-Made Garments was US$ 16 Bn with 36% share showing a growth of 31%.
- Man-made textiles export was US$ 6.3 Bn with 14% share which shows a growth of 51%.
- Export of Handicrafts was US$ 2.1 Bn with 5% share reporting a growth of 22%.

Note: All growth percentages are compared to the previous year i.e. 2020-21.

Expanding the mandate of Government e Marketplace

The Union Cabinet, chaired by the Prime Minister, has approved the expansion of the mandate of GeM to allow procurement by Cooperatives as buyers on GeM.

- GeM so far allowed procurement of goods and services by government departments, ministries, and public sector units (PSUs) from MSMEs and others enterprises.

Key Points

- This will bring transparency into cooperatives, help them benefit from the GeM marketplace.
- At present, the platform is open for procurement by all government buyers, i.e.,
  - o Central and state ministries, departments, public sector enterprises, autonomous institutions, local bodies, etc.
- As per existing mandate, GeM is not available for use by private sector buyers.
- Suppliers (sellers) can be from across all segments: government or private.
- More than 8.54 lakh registered cooperatives and their 27 Crore members would be benefitted with this initiative.
- Allowing Cooperative Societies to register on GeM as Buyers would help Cooperatives in getting competitive prices through an open and transparent process.
- Ministry of Cooperation would issue necessary advisories to encourage the Cooperative Societies to make use of the GeM platform.
- The overall pace and mechanism of roll-out would be decided by Ministry of Cooperation.
- The milestones and target dates will be aligned mutually between Ministry of Cooperation

and GeM (Ministry of Commerce and Industry).

- This is also expected to enhance overall "Ease of Doing Business" for cooperatives.

About Government e-marketplace

Government e-Marketplace (GeM) is a one stop portal to facilitate online procurement of common use Goods & Services required by various Government Departments / Organizations / PSUs.

- GeM aims to enhance transparency, efficiency and speed in public procurement.
- Government e-Marketplace owes its genesis to the recommendations of two Groups of Secretaries made to the Prime Minister in January 2016.
- DGS&D with technical support of National eGovernance Division (Ministry of Electronics and Information Technology) has developed GeM portal.
- The portal was launched on 9th August 2016 by the Commerce & Industry Minister.

Note: DGS&D is Directorate General of Supplies and Disposals.

90th Year Celebrations of the Merchants Chamber of Uttar Pradesh

The President of India graced the 90th year celebrations of the Merchants Chamber of Uttar Pradesh at Kanpur.

- This organization has been providing a platform for mutual coordination between the business and industry and policy makers.

About the Merchants Chamber of Uttar Pradesh

Welcome to Merchants Chamber of Uttar Pradesh
A Long Saga in Service of Trade & Industries

Merchants Chamber of Uttar Pradesh is one of the oldest Industry and Commerce organisations of India and the first in northern India.

- Lala Kamlapat Singhania, the doyen of the Indian industrial and business community of the erstwhile United Provinces of Agra & Oudh set it up in November 1932.
- The aim behind this was to spread and put into practice the message of Swadeshi movement in industries and commerce in India during British rule.
- The Chamber acts as a catalyst in the promotion of industry, trade and entrepreneurship.

Cooperative Banks Credit Flow

The Reserve Bank of India has announced three very important policy decisions for the cooperative sector.

- These measures will help increase credit flow through Cooperative Banks.

Key Points

- Firstly, the individual housing loan limit for Urban Co-operative Banks has been doubled.
- With this decision, the individual housing loan limit for Tier 1 Urban Cooperative Banks (UCBs) has now been increased from 30 lakh to 60 lakh,
  - For Tier 2 UCB from 70 lakh to 1.40 crore and
  - For Rural Cooperative Banks (RCBs) the limit has been increased from 20 lakhs and 30 lakhs to 50 lakhs and 75 lakhs respectively.
- In another major decision, Rural Co-operative Banks (RCBs) have been allowed to lend to the Commercial Real Estate Residential Housing sector,
  - This will increase the scope of our Rural Co-operative Banks and also give impetus to the resolution of providing affordable houses to the people.
- In the third major decision, now Urban Co-operative banks have been allowed to provide door step banking facility to their customers like commercial banks.
  - With this decision, cooperative banks will now get a level playing field in the competitive banking sector.

Brief History of Urban Cooperative Banks in India

- The term Urban Co-operative Banks (UCBs), though not formally defined, refers to primary cooperative banks located in urban and semi-urban areas.
- These banks, till 1996, were allowed to lend money only for non-agricultural purposes. This distinction does not hold today.
- These banks were traditionally centred around communities, localities work place groups.
- They essentially lent to small borrowers and businesses.
- Today, their scope of operations has widened considerably.
- The first known mutual aid society in India was probably the "Anyonya Sahakari Mandali" organised in the erstwhile princely State of Baroda in 1889.
- The enactment of Cooperative Credit Societies Act, 1904, however, gave the real impetus to the movement.
- The first urban cooperative credit society was registered in Canjeevaram (Kanjivaram) in the erstwhile Madras province in October, 1904.
- The Cooperative Credit Societies Act, 1904 was amended in 1912, with a view to broad basing it to enable organisation of non-credit societies.
- The Maclagan Committee of 1915 was appointed to review their performance and suggest measures for strengthening them.
- The recommendations of the Committee went a long way in establishing the urban cooperative credit movement in its own right.
- The Government of India Act in 1919 transferred the subject of "Cooperation" from Government of India to the Provincial Governments.
- The first study of Urban Co-operative Banks was taken up by RBI in the year 1958-59.
- The Report published in 1961 acknowledged the widespread and financially sound framework of urban co-operative banks.
- In 1963, Varde Committee recommended that such banks should be organised at all Urban Centres with a population of 1 lakh or more.

Duality of Control

However, concerns regarding the professionalism of urban cooperative banks gave rise to the view that they should be better regulated.

- Large cooperative banks with paid-up share capital and reserves of Rs.1 lakh were brought under the perview of the Banking Regulation Act 1949.
    - This came with effect from 1st March, 1966 and within the ambit of the Reserve Bank"s supervision.
- This marked the beginning of an era of duality of control over these banks.
- Banking related functions (viz. licensing, area of operations, interest rates etc.) were to be governed by RBI and
    - Registration, management, audit and liquidation, etc. governed by State Governments as per the provisions of respective State Acts.
- In 1968, UCBS were extended the benefits of Deposit Insurance.
- Over the years, primary (urban) cooperative banks have registered a significant growth in number, size and volume of business handled.

Other Data related to Cooperative Banks

- As on May 31, 2021, there are 1,531 urban cooperative banks (UCBs) and 97,006 rural cooperative banks.
    - With the latter making up 65% of the total asset size of all cooperatives taken together.
- The asset size of Cooperative sector was only around 10% compared to that of scheduled commercial banks (SCBs)
- Share of rural cooperative lending in total agricultural lending has considerably diminished over the years, from as high as 64% in 1992-93 to 11.3% in 2019-20.

Pradhan Mantri Matsya Sampada Yojna (PMMSY) Dashboard

In line with Digital India flagship programme of the Government of India, PMMSY MIS (Management Information System) dashboard was recently launched.

Key Points

- Keeping in view the vast scope of the PMMSY scheme with multitude locations and components
    - it is imperative to put a Management Information System (MIS) in place for aggregating information on one platform.
- The PMMSY MIS dashboard aims at
    - (i) effective monitoring of the PMMSY scheme activities and their progress in all participating States/UTs
    - (ii) strategically utilising the information for informed decision making.

About PMMSY

The Pradhan Mantri Matsya Sampada Yojana (PMMSY) was launched in September 2020 with an aim to double the income of fish farmers and fishers in the country.

- It is designed to address critical gaps in fish production and productivity along with management and modernisation.
- Pradhan Mantri Matsya Sampada has been approved at a total estimated investment of Rs. 20,050 crores comprising of Central share of Rs. 9407 crores.
  - The State share is of Rs 4880 crores and Beneficiaries contribution is of Rs. 5763 crores.
- PMMSY will be implemented in all the States and Union Territories for a period of 5 (five) years from FY 2020-21 to FY 2024-25.

- With implementation of the scheme, the government aims to achieve the following:
  - help reduce post-harvest loss from 20–25% to 10%,
  - double the incomes of fishers and fish farmers and
  - generate an additional 55 lakhs direct and indirect employment opportunities.
- Key targets of the Pradhan Mantri Matsya Sampada Yojana are as follows:
  - Increasing fish production from 13.75 million metric tons in 2018-19 to 22 million metric tons by 2024-25.
  - Improving aquaculture productivity from 3 tons per hectare to 5 tons per hectare.
  - Enhancing domestic fish consumption from 5 kg to 12 kg per capita.
  - Increasing contribution of the fisheries sector to the Agriculture GVA from 7.28% in 2018-19 to about 9% by 2024-25.
  - Doubling export revenue from Rs. 46,589 crore (US$ 6.37 billion) in 2018-19 to Rs. 100,000 crore (US$ 13.68 billion) by 2024-25.
  - Reducing post-harvest losses to about 10%.
  - Creating 55 lakh direct and indirect employment opportunities across the value chain.

₹20,000 crores for Fishermen through Pradhan Mantri Matsya Sampada Yojana (PMMSY)

- Critical gaps in fisheries value chain
- Government will launch the PMMSY for integrated, sustainable, inclusive development of marine and inland fisheries.
- ₹11,000 Cr for activities in Marine, Inland fisheries and Aquaculture
- ₹9000 Cr for Infrastructure - Fishing Harbours, Cold chain, Markets etc.
- Cage Culture, Seaweed farming, Ornamental Fisheries as well as New Fishing Vessels, Traceability, Laboratory Network etc. will be key activities.
- Provisions of Ban Period Support to fishermen (during the period fishing is not permitted), Personal & Boat Insurance
- Will lead to Additional Fish Production of 70 lakh tonnes over 5 years.
- Employment to over 55 lakh persons; double exports to ₹1,00,000 Cr.
- Focus on Islands, Himalayan States, North-east and Aspirational Districts.

Source: Government of India

World Metrology Day 2022

CSIR-National Physical Laboratory, New Delhi in association with Metrology Society of India (MSI) organized the World Metrology Day.

- It is celebrated on 20th May 2022 to commemorate the anniversary of the signing of the Metre Convention on 20th May 1875.

Key Points

- The theme for World Metrology Day 2022 is 'Metrology in the Digital Era'.

This theme was chosen because digital technology is revolutionizing every community, and is one of the most exciting trends in society today.

Note: CSIR-National Physical Laboratory is the custodian of national measurement standards through an act of Parliament and provides traceability to SI units in India.

World Metrology Day

Metrology in the Digital Era

20 May 2022
www.worldmetrologyday.org

Bureau International des Poids et Mesures OIML

Metrology is "the science of measurement, embracing both experimental and theoretical determinations at any level of uncertainty in any field of science and technology," as defined by the International Bureau of Weights and Measures.

Seed Chain Development

Union Minister of Agriculture and Farmers Welfare presided over a national webinar on "Seed Chain Development".

- Amid strenuous efforts to raise farmers' income by the Centre, 'Seed Chain Development' is acquiring greater significance.

Key Points

- Seed is the basic and most critical input for sustainable agriculture.
- The response of all other inputs depends on quality of seeds to a large extent.
- It is estimated that the direct contribution of quality seed alone to the total production is about 15-20% depending upon the crop.
  - And it can further be raised up to 45% with efficient management of other inputs.
- Availability of good seeds for farming increases production and productivity, resulting in higher income for farmers.
- In this direction, 'Seed Chain Development' will help farmers get timely supply of good quality seeds by strictly curbing black marketing and selling of fake seeds.
- The ministry aims to properly streamline the entire seed chain so that farmers do not face any problem.

Note: FDI is permitted up to 100% under the automatic route in development and production of seeds and planting material subject to certain conditions.

- For the availability of quality seeds, Government of India became a member of OECD Seed Scheme and participates in the five varietal certification schemes.
- Currently, 61 seed varieties from the public sector, covering 19 crops, are listed in the 2011 OECD.

About Seeds

- Seed is the most important and vital input for agricultural production.
- In fact, it is the most cost efficient means of increasing agricultural production and productivity.
- Quality of seed accounts for twenty to twenty five percent of productivity.
- It is, therefore, important that quality seeds are made available to the farmers of the country.
- The Indian Seeds programme recognizes three generations of seeds, namely, breeder, foundation and certified seeds.
- The Department of Agriculture and Co-operation is implementing a Central Sector Scheme as 'Development and Strengthening of Infrastructure Facilities for Production and Distribution of Quality Seeds' since 2005-06 for the whole country.
- The objective of the ongoing scheme is to ensure production and multiplication of high yielding certified/quality seeds of all crops.

AI to make roads in India safer to drive

Artificial Intelligence (AI) powered solutions may soon make roads in India a safer place to drive.

- The project 'Intelligent Solutions for Road Safety through Technology and Engineering' (iRASTE) at Nagpur is being implemented.

Key Points

- The project will identify potential accident-causing scenarios while driving a vehicle and alert drivers about the same with the help of the Advance Driver Assistance System (ADAS).
- It is a unique AI approach that uses the following:
  - predictive power of AI to identify risks on the road, and
  - a collision alert system to communicate timely alerts to drivers.
- It will help make several improvements related to road safety.
- It is being implemented in Nagpur City with an objective of resulting in a significant reduction of accidents.
- The project will also identify 'greyspots', i.e., by data analysis and mobility analysis by continuously monitoring dynamic risks on the entire road network.
- Greyspots are locations on roads, which left unaddressed could become blackspots (locations with fatal accidents).
- The system also conducts continuous monitoring of roads and designs engineering fixes to correct existing road blackspots for preventive maintenance and improved road infrastructure.
- The iRASTE project is being developed by the I-Hub Foundation, IIIT Hyderabad.
  - It is a Technology Innovation Hub (TIH) set up by the Department of Science and Technology (DST).

PARAM PORUL Supercomputer

PARAM PORUL, a state-of the art Supercomputer at NIT Tiruchirappalli was dedicated to the nation under National Supercomputing Mission (NSM).

- It is a joint initiative of Ministry of Electronics and Information Technology (MeitY) and Department of Science and Technology (DST).

Key Points

- PARAM PORUL supercomputing facility is established under Phase 2 of the NSM.
- In this phase, the majority of the components used to build this system have been manufactured and assembled within the country.
  - Along with an indigenous software stack developed by C-DAC, in line with the Make in India initiative.
- A MoU was signed between NIT Tiruchirappalli and C-DAC to establish this 838 Tera-Flops Supercomputing Facility under NSM.
- PARAM PORUL system is based on Direct Contact Liquid Cooling technology to obtain a high power usage effectiveness and thereby reducing the operational cost.
- Multiple applications from various scientific domains such as:
  - Weather and Climate,
  - Bioinformatics,
  - Computational Chemistry,
  - Molecular Dynamics,
  - Material Sciences, Computational Fluid Dynamics etc.
  - has been installed on the system for the benefit of researchers.
- NIT, Tiruchirappalli has been carrying out research in the areas of societal interest such as Health, Agriculture, Weather, and Financial Services.
  - The facility installed under NSM will strengthen this research.

About National Supercomputing Mission (NSM)

- India has showcased its talent on building supercomputers at low cost with its PARAM series.
- To further enhance its capacity and to meet requirements, Government of India launched

National Supercomputing Mission (NSM) in 2015.

- Under NSM, the plan was to connect R&D institutions and academic institutions in the country.
  o By using a supercomputing grid with more than 70 high performance computing facilities.
- Spread over the period of seven years the estimated cost of this mission is Rs. 4,500 crores (US$ 593 million).
- Department of Science and Technology (DST) and Department of Electronics and Information Technology (DeitY) jointly guides the mission.
- Centre for Development of Advanced Computing (C-DAC) is entrusted with overall design, development, deployment, and commissioning of computers build under this mission.
- Atos a French based IT services firm won the contract to build parts for the supercomputers for C-DAC.

Different Phases of the Mission

- National Supercomputing Mission was planned in three phases.
- Phase 1-Plan was to install 6 supercomputers with 30% value additions done in India.
- Phase 2- Second phase which started in April 2021 aimed at manufacturing supercomputers in the country with an indigenous software stack.
- Phase 3- Focus is on design and manufacturing in the country. Phase 3, has been initiated in 2021 and is expected to take computing speed to 45 PF.
  o As per plan three system with 3 PF each and one system with 20 PF will be installed at national facility.

Benefits and application

Supercomputers built under NSM scheme is used in following large scale applications.

- NSM Platform for Genomics and Drug Discovery.
- Urban Modelling: Science Based Decision Support Framework to Address Urban Environment Issues (Meteorology, Hydrology, Air Quality).
- Flood Early Warning and Prediction System for River Basins of India.
- HPC Software Suite for Seismic Imaging to aid Oil and Gas Exploration.
- MPPLAB: Telecom Network Optimization.

Recent developments

- NSM has deployed "PARAM Ganga", a supercomputer at IIT Roorkee with a supercomputing capacity of 1.66 Petaflops as apart of phase 2.
- PARAM Siddhi-AI is the fastest supercomputer in India built under NSM with a capacity of 5.26 PF.
- So far under Phase 1 & Phase 2 total 15 systems with computer power of 22 Petaflops (PF) has been built.

Supercomputers Installed & Commissioned in India as a part of NSM		
Name	Speed	Location
PARAM Shivay	833 TF	IIT BHU Varanasi
PARAM Shakti	1.66 PF	IIT Kharagpur
PARAM Brahma	797 TF	IISER Pune
PARAM Sanganak	1.66 PF	IIT Kanpur
PARAM Seva	833 TF	IIT-H
PARAM Yukti	833 TF	JNCASR
PARAM Smriti	833 TF	NABI Mohali
PARAM Utkarsh	833 TF	C-DAC B
PARAM Sidhi	5.26 PF	National AI Facility CDAC-Pune
PARAM Pravega	3.3 PF	IISC
PARAM Ganga	1.66 PF	IIT Roorkee
Total	18.5 PF	

About C-DAC

Centre for Development of Advanced Computing (C-DAC) is the premier R&D organization of the Ministry of Electronics and Information Technology (MeitY).

- The setting up of C-DAC in 1988 was to build Supercomputers in context of denial of import of Supercomputers by USA.
- Since then C-DAC has been undertaking building of multiple generations of Supercomputer starting from PARAM with 1 GF in 1988.
- Almost at the same time, C-DAC started building Indian Language Computing Solutions with setting up of GIST group (Graphics and Intelligence based Script Technology).
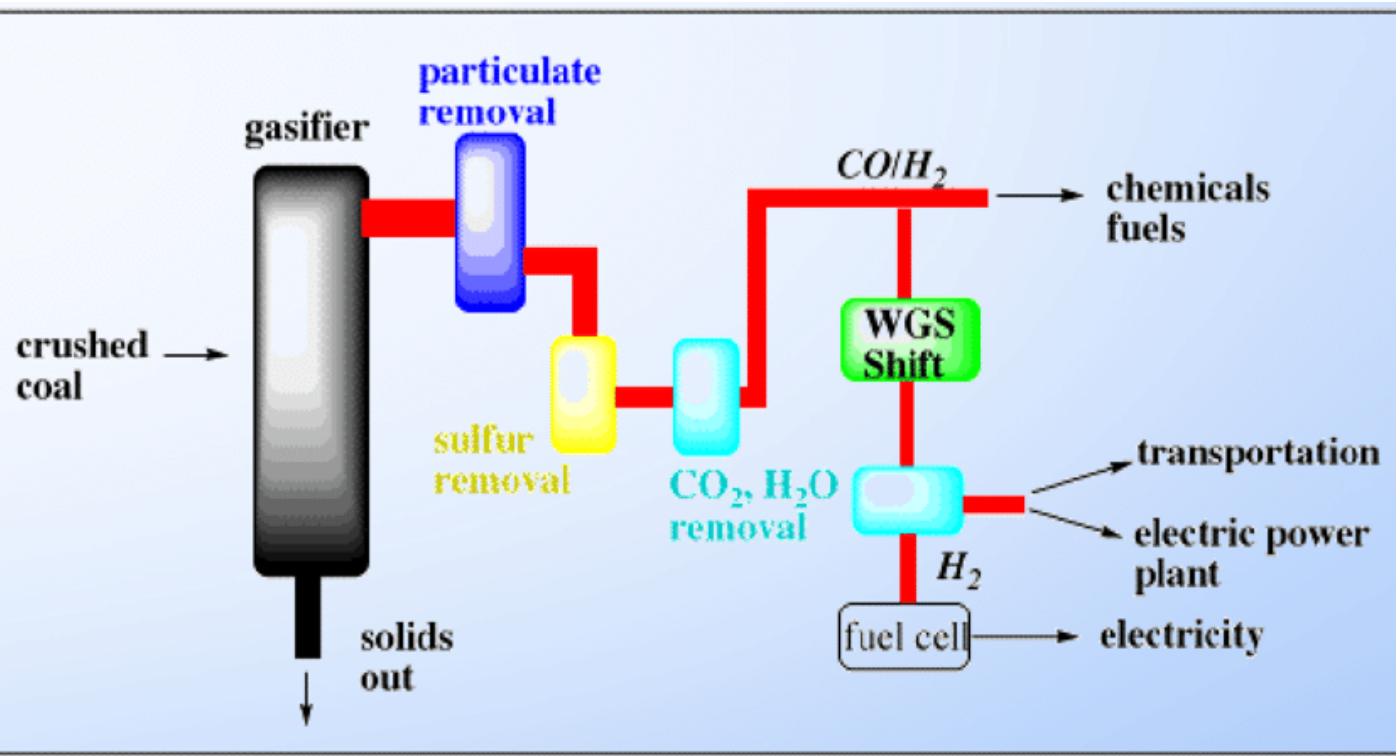
100 Million Tonnes Coal Gasification by 2030

Government of India has set a target to achieve 100 Million Tonnes Coal Gasification by 2030.

- The Ministry of Power has prepared a National Mission document to achieve the goal.

What is Coal gasification?

- Coal gasification is the process of converting coal into synthesis gas (also called syngas).

- o It is a mixture of hydrogen (H_2), carbon monoxide (CO) and carbon dioxide (CO_2).
- The syngas can be used in a variety of applications such as in the production of electricity and making chemical products, such as fertilisers.
- The coal gasification process holds good potential in the future and even low-grade coal can be used in the process.

National AI Portal

The second-year anniversary of 'National AI Portal (https://indiaai.gov.in)' was celebrated recently.

- The National AI Portal is a joint initiative by the Ministry of Electronics and IT (MeitY), National e-Governance Division (NeGD) and NASSCOM.

About the Portal

- INDIAai is the National AI Portal of India - a central hub for everything AI in India and beyond.
- The website aims to be the trusted content powerhouse in the backdrop of India's journey to global prominence in Artificial Intelligence.
- It is the single central knowledge hub on artificial intelligence and allied fields for aspiring entrepreneurs, students, professionals, academics, and everyone else.
- The portal focuses on creating and nurturing a unified AI ecosystem for driving excellence and leadership in India's AI journey.

Study about Assam Earthquake

Researchers have traced the great Assam Earthquake to complex tectonics of the North Eastern fringe of the Indian Plate.

Key Points

- The North Eastern fringe lies in the Eastern Himalaya as well as the Indo-Burma Ranges (IBR).
- The interactions between these two zones can produce deeper earthquakes in IBR and crustal ones in the Eastern Himalaya.
- The north-eastern fringe of the Indian Plate in the Eastern Himalaya has been found to be seismically active up to about 40 km depth.
  - o While the seismicity in the Indo-Burma Ranges (IBR) is observed up to a depth of around 200 km.
- This suggests that this seismic structure forms a complex tectonics which produced the great Assam earthquake of 1950 (M 8.6).
  - o And maybe building up stress for a fu-

ture earthquake.

- The Great Assam Earthquake is the largest intra-continental earthquake ever recorded.
  o It was located at the India-China border near the Mishmi Hills of Arunachal Himalaya.
- The Eastern Himalayan Syntaxis (EHS) in Arunachal Pradesh and bordering regions of Assam is acknowledged as one of the most seismically active regions in the world.
- The northeast corner of the Indian Plate in the EHS belongs to the seismic zone V of the national zoning map of India.
- After the 1950 great Assam earthquake, the region between the upper Assam and the Mishmi Block is not producing any large earthquakes.
- A previous study has suggested a locked zone in the Mishmi Thrust (MT) zone, which may suggest building up of stress for a future earthquake.
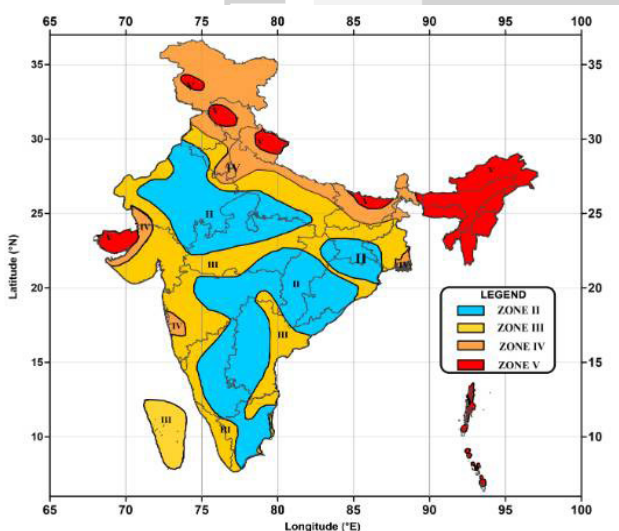
Seismic Zones of Country

Image: Seismic zoning map of India

- The Bureau of Indian Standards has classified regions in India into four seismic zones on the basis of historical seismic activity.
- These are zones II, III, IV and V.
- Among these, Zone V is the most seismically active region and zone II is the least active.

A Unique Liquid-Mirror Telescope

A new telescope facility atop a mountain in the Himalayan range will now keep a watch on the overhead sky.

- Objective is to identify transient or variable objects such as supernovae, gravitational lenses, space debris, and asteroids.

Key Points

- The telescope is commissioned at Devasthal, a hill in Uttarakhand.
- It will help in surveying the sky making it

possible to observe several galaxies and other astronomical sources.

- It is the first liquid mirror telescope in the country and the largest in Asia.
- It was built by astronomers from India, Belgium and Canada.
- The novel instrument employs a 4-meter-diameter rotating mirror made up of a thin film of liquid mercury to collect and focus light.
- A thin transparent film of mylar protects the mercury from wind.

In Image: Devasthal Observatory of ARIES showing the liquid mercury mirror covered by a thin mylar film.

Intermediate Range Ballistic Missile, Agni-4

A successful training launch of an Intermediate Range Ballistic Missile, Agni-4, was carried out from APJ Abdul Kalam Island, Odisha.

- The successful test was part of routine user training launches carried out under the aegis of the Strategic Forces Command.

About Agni Missiles

- The Agni category missiles are solid propelled ballistic missiles ranging from short range missiles to intermediate range missiles (700-5000 kms) with road and rail mobility.
- The Agni missile is a component of the Integrated Guided Missile Development Program (IGMDP).
- The program was launched by India in 1983 with a budget of $260 million.
- It was managed by Defence Research and Development Laboratory (DRDL).
- The Agni category missiles were to use the Indian Space Research Organisation (ISRO) developed solid fuelled engines.
- In 1989, India test fired Agni category missile that had a range of 1000-1500kms. It was the Agni I category missile.
- The first stage of the solid fuelled booster mo-

tor of the Satellite Launch Vehicle (SLV-3) was used for the first stage of the two-staged Agni missile.

- In 1999, India under the auspices of the Defence Research and Development Organisation (DRDO), test fired the Agni-II medium range ballistic missile.
  - o Agni-II has an improved guidance system with a range of 2000kms.
- Agni-II used solid fuel in both the stages, thereby, drastically cutting down preparation time for launching the missile.
- 2011 was a landmark year for India's nuclear deterrence as it was in the same year that the intermediate range Agni-III was also inducted in the Indian Army.
- However, despite the fact that India had developed Agni-III with a range of 3000 kms, they still needed to develop a longer range capability.
- This led to the development of the Agni-IV intermediate range ballistic missile.
  - o The missile had a range of 4000kms.
- Agni-IV missile is nuclear capable with a range of 4000kms.
- India's desire to achieve inter-continental range capability further led India to develop the Agni-V missile with a range of 5000kms.
- Unlike the other versions of the Agni missile, the Agni-V is a three-stage solid propelled ballistic missile.
- Agni-V missile may be fitted with multiple independently targetable re-entry vehicles (MIRVs) as well as with manoeuvrable re-entry vehicle (MaRV).
  - o Both technologies being developed by the DRDO.

AGNI - I   AGNI - II   AGNI - III   AGNI - IV   AGNI - V

Biotech Startup Expo – 2022

Prime Minister recently inaugurated the Biotech Startup Expo - 2022 at Pragati Maidan.

- It is being organised by the Department of Biotechnology and Biotechnology Industry Research Assistance Council (BIRAC).

Key Points

- It is being held to mark completion of ten years of setting up of BIRAC.
- The theme of the Expo is 'Biotech Startup Innovations: Towards AatmaNirbhar Bharat'.

About BIRAC

- Biotechnology Industry Research Assistance Council (BIRAC) is a not-for-profit Section 8, Schedule B, Public Sector Enterprise.
- It was set up by Department of Biotechnology (DBT), Government of India as an Interface Agency to strengthen and empower the emerging Biotech enterprise.
- The objective is to undertake strategic research and innovation, addressing nationally relevant product development needs.
- BIRAC is an industry-academia interface and implements its mandate through a wide range of impact initiatives.
- BIRAC has initiated several schemes, networks and platforms that help to bridge the existing gaps in the industry-academia Innovation research.
- Vision: To Stimulate, foster and enhance the strategic research and innovation capabilities of the Indian biotech industry, particularly start-ups and SME's;
  - o So as to create affordable products addressing the needs of the largest section of society.

DST launches Geospatial Self Certification Portal

In what can be called a massive step towards liberalization of the Geospatial industry in India, the Department of Science and Technology (DST) launched the Self Certification Portal.

- The portal is for conveying adherence to provisions of Geospatial Guidelines by Individuals, companies, organizations, and Government agencies.

Key Points

- As per the guidelines, there shall be no re-

quirement for the following:

- o prior approval,
- o security clearance,
- o license or any other restrictions on the collection,
- o generation, preparation, dissemination, storage, publication, updating and/or
- o digitization of Geospatial Data and Maps within the territory of India.
- Individuals, companies, organizations, and Government agencies, shall be free to process the acquired Geospatial Data.
  - o They can also build applications and develop solutions in relation to such data.

- o They can also use such data products, applications, solutions, etc. by way of selling, distributing, sharing, disseminating, and publishing.
- Self-certification will be used to convey adherence to these guidelines.
- Using the Portal will essentially cut down time spent on obtaining clearances and approvals drastically.
- The Portal has been developed in collaboration with NIC.

Neutral electron flow detected in Graphene

Physicists have detected counter propagating channels in two layered graphene along which certain neutral quasiparticles move in opposite directions break-
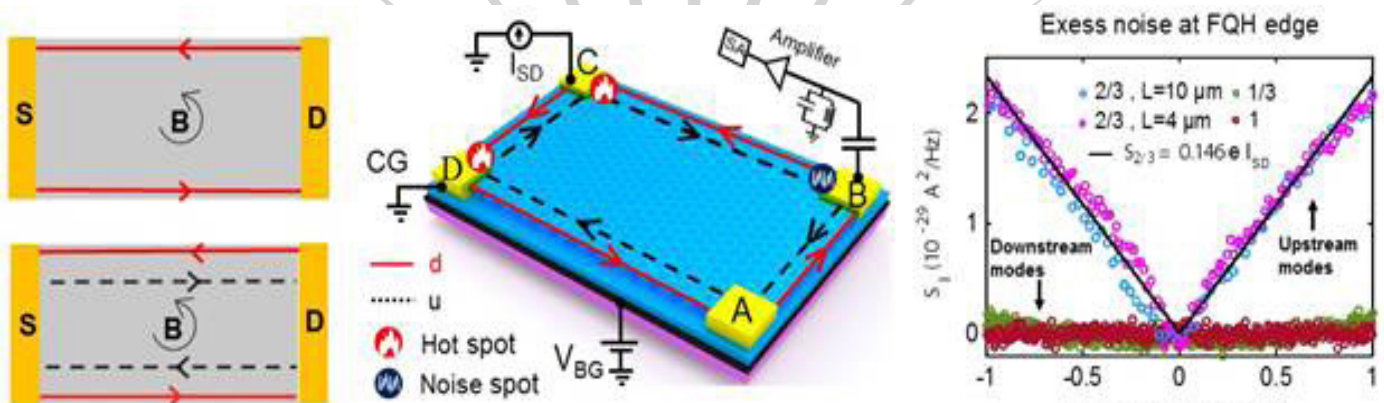
Malviya Mission

Union Minister of Education reviewed the report on institutional mechanism for capacity building of teacher/faculty in higher education institutes.

- Minister Pradhan pitched in with an idea of a "Malviya Mission" to develop enabling ecosystem across the country for teacher education/ faculty development.

About Pandit Madan Mohan Malviya National Mission on Teachers and Teaching

The Pandit Madan Mohan Malviya National Mission on Teachers and Teaching (PMMMNMTT) aims to infuse innovation in pedagogy (teaching) leading to better learning outcomes.

- The PMMMNMTT focuses on Integrated Teacher education programmes to cater to the professional development needs for both pre-service and in-service teachers & faculty.
- The Mission also aims to build effective leadership & management in schools and higher education institutes.
- The Scheme was launched on 25th December, 2014 with an outlay of Rs. 900 crore over the XII Plan.
  - o After the plan period got over, the Expenditure Finance Committee (EFC) extended the Scheme duration upto March 2020.

Objectives of PMMMNMTT in Higher Education

- To ensure that newly appointed Assistant Professors in Colleges, and Universities are oriented properly, the PMMMNMTT focuses on induction training to faculty.
- Additionally, the mission recognizes that the evaluation process needs to be made more scientific to encourage the development of multiple skills of students.

The Mission goals are sought to be achieved through a combination of:

- Programmatic and scheme based interventions:
  - o Pre-service & in-service training through existing and new institutional structures.
- Project based activities:

  - o ICT based training, training of Mathematics, Science, Language teachers for schools, Core science & engineering courses in technical education, etc.

The Mission consists of the following components:-

- Schools of Education in Central, State and Deemed Universities
- Centres of Excellence for Curriculum and Pedagogy
- Inter-University Centre for Teachers Education
- National Resource Centre for Education
- Centres of Academic Leadership and Education Management
- Innovations, Awards and Teaching Resource Grant, including workshops and seminars
- Subject Networks for Curricular Renewal and Reforms
- Leadership Development for senior functionaries in higher education institutions
- Induction training of newly recruited faculty
- Leadership for Academic Programme (LEAP).

Scheme of
**Pandit Madan Mohan Malaviya
National Mission on
Teachers and Teaching
(PMMMNMTT)**

The State of Inequality in India Report

The State of Inequality in India Report was released today by Dr Bibek Debroy, Chairman, Economic Advisory Council to the Prime Minister (EAC-PM).

- The report has been written by the Institute

for Competitiveness and presents a holistic analysis of the depth and nature of inequality in India.

Key Points

- The report compiles information on inequities across sectors of health, education, household characteristics and the labour market.
- As the report presents, inequities in these sectors make the population more vulnerable and triggers a descent into multidimensional poverty.
- The report is a stock-taking of both inclusion and exclusion and contributes to the policy debates.
- The report consists of two parts – Economic Facets and Socio-Economic Manifestations.
  - It looks at five key areas that influence the nature and experience of inequality.
  - These are income distribution, labour market dynamics, health, education and household characteristics.
- It is based on the data derived from various rounds of the Periodic Labour Force Survey (PLFS), National Family and Health Survey (NFHS) and UDISE+.
- Each chapter is dedicated to explaining the current state of affairs, areas of concern, successes and failures in terms of infrastructural capacity and finally, the effect on inequality.
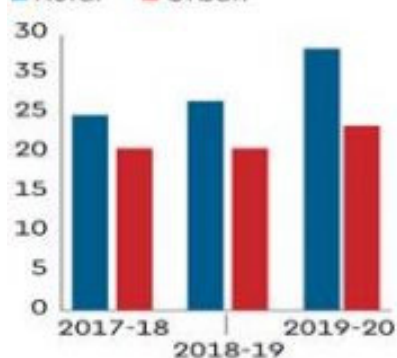
- It is a study that cuts across the intersections of class, gender, and region and highlights how inequality affects the society.
- The report moves beyond the wealth estimates that depict only a partial picture to highlight estimates of income distribution over the periods of 2017-18, 2018-19 and 2019-20.
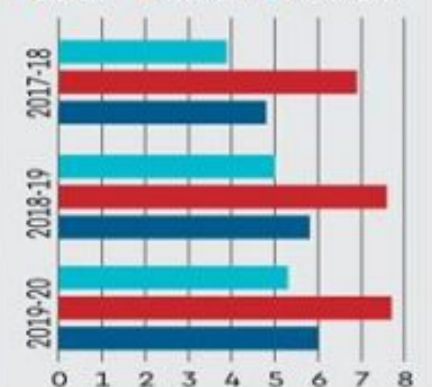
Key Findings

1. Labour Market

- Extrapolation of the income data from PLFS 2019-20 has shown that a monthly salary of Rs 25,000 is already amongst the top 10% of total incomes earned.
  - This clearly points towards some levels of income disparity.
- The share of the top 1% accounts for 6-7% of the total incomes earned.
  - While the top 10% accounts for one-third of all incomes earned.
- In 2019-20, among different employment categories, the highest percentage was of the following:
  - self-employed workers (45.78%),
  - followed by regular salaried workers (33.5%) and
  - casual workers (20.71%).
- The share of self-employed workers also happens to be the highest in the lowest income

Labour force partcipation rate (%)
- Rural
- Urban

Unemployment rate (%)
- Rural
- Urban
- All India

Health infra

	2005	2019-20
Sub Centres (SC)	1,46,026	1,55,404
Primary Health Centres (PHC)	23,236	24,918
Community Health Centres (CHC)	3,346	5,183

Spending on health

	Rural	Urban
Government hospital	₹4,290	₹4,400
Private Hospital	₹27,000	₹38,000

Gross enrollment ratio

Education level	2019-20	2018-19
Primary (I-V)	102.74	101.25
Upper primary (VI-VIII)	89.67	87.74
Secondary (IX-X)	77.9	76.9
Higher Secondary (XI-XII)	51.42	50.14

Wealth concentration*

Maximum	States/UT	
Chandigarh		80.80
Delhi		62.80
Punjab		62.00
Goa		55.90

Minimum	States/ut	
Bihar		3.300
Tripura		6.200
Meghalaya		6.300
Assam		6.400
Odisha		7.300
Jharkhand		8.800
West bengal		9.400

Quantile (%); *in the highest quintile

Source: PLFS, UDISE, NFHS

Household facilities (% of households)
- Electricity access
- Improved drinking water access
- Improved sanitation access
- Clean cooking fuel

NFHS-4 (2015-16): 88, 48, 90, 44
NFHS-5 (2019-21): 97, 70, 96, 59

categories.

- The country's unemployment rate is 4.8% (2019-20), and the worker population ratio is 46.8%.
- The Labour Force Participation Rate (LFPR) for women, which stands at an abysmal 30% as per PLFS 2019-20.

2. Health

- In the area of health infrastructure, there has been a considerable improvement in increasing the infrastructural capacity with a targeted focus on rural areas.
- From 1, 72,608 total health centres in India in 2005, total health centres in 2020 stand at 1, 85,505.
- States and Union Territories like Rajasthan, Gujrat, Maharashtra, Madhya Pradesh, Tamil Nadu and Chandigarh have significantly increased health centres.
- The results of NFHS-4 (2015-16) and NFHS-5 (2019-21) have shown that 58.6% of women received antenatal check-ups in the first trimester in 2015-16.
  - This data increased to 70% by 2019-21.
- 78% of women received postnatal care from a doctor or auxiliary nurse within two days of delivery.
  - 79.1% of children received postnatal care within two days of delivery.
- However, nutritional deprivation in terms of overweight, underweight, and prevalence of anaemia remains areas of huge concern.
  - The situation is even more concerning in children, adolescent girls and pregnant women.
- Additionally, low health coverage, leading to high out-of-pocket expenditure, directly affects poverty incidences.

3. Education

- Education and household conditions have improved enormously due to targeted efforts through several social protection schemes.
- It is emphasised that education and cognitive development from the foundational years is a long-term corrective measure for inequality.
- By 2019-20, 95% of schools have functional toilet facilities on the school premises (95.9% functional boy's toilets and 96.9% functional girl's toilets).
- 80.16% of schools have functional electricity connections.
- States and Union Territories like Goa, Tamil Nadu, Chandigarh, Delhi, Dadra and Nagar Haveli and Daman and Diu, Lakshadweep and Puducherry have achieved universal (100%) coverage of functional electricity connections.
- The Gross Enrolment Ratio has also increased between 2018-19 and 2019-20 at the primary, upper primary, secondary and higher secondary.
- As per NFHS-5 (2019-21), 71.8 % of the female population aged 6 years and above have attended school at least once.
  - At the same time, the percentage of women who have completed at least ten or more years of schooling remains abysmally low at 41% (with rural regions recording a mere 33.7%).
  - In contrast, men with ten or more years of schooling are recorded at 50.2% at all India level.
- In terms of dropout rates, the percentage of students dropping out from various levels of education has significantly improved from 2018-19.
  - With a decline from 4.45% overall to only 1.4% at the primary level.

Table 4.1 Gross Enrolment Ratio (GER) by Gender and Level of School (2019-20 & 2018-19)

EDUCATION LEVEL	2019-20			2018-19		
	GIRLS	BOYS	TOTAL	GIRLS	BOYS	TOTAL
PRIMARY (I–V)	103.69	101.87	102.74	101.78	100.76	101.25
UPPER PRIMARY (VI–VIII)	90.46	88.93	89.67	88.54	87	87.74
SECONDARY (IX–X)	77.83	77.97	77.9	76.93	76.87	76.9
HIGHER SECONDARY (XI–XII)	52.4	50.52	51.42	50.84	49.49	50.14

Source: UDISE+ Dashboard – 2019-20

Note: In 2019-20, the GPI was more than 1 across all levels of education at the all India level.

- Out of approximately 26.6cr total enrolments, nearly 37.13% of students were enrolled in private unaided (recognised) schools.
  - And about 49.5% of students were enrolled in government schools.

4. Household

- In terms of improvement in household conditions, emphasis on providing access to sanitation and safe drinking water has meant leading a dignified life for most households.
- According to NFHS-5 (2019-21):
  - 97% of households have electricity access,
  - 70% have improved access to sanitation, and
  - 96% have access to safe drinking water.

5. Other Important Social Indicators

- India's expenditure on social services has increased over the years from 6.2% in2014-15 to

26.6% in 2021-22 (as per Budget Estimates).
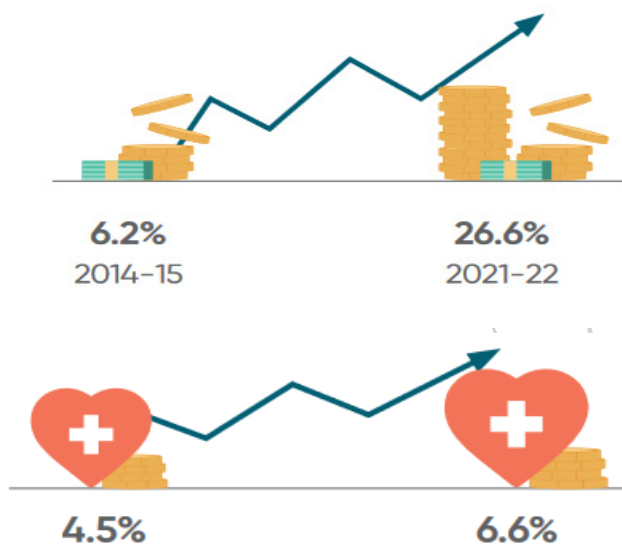- There has been a consistent rise in health expenditure from 4.5% to 6.6%.

Image 1: Social Sector Expenditure   Image 2: Health Expenditure(2014-15 to 2021-22)

- The top 1% earns almost thrice as much as the bottom 10%.
- The bottom 50% held approximately 22% across the three time periods (2017-18 to 2019-20).
  - o The growth rate of the bottom 50% has been at 3.9% from 2017-18 to 2019-20, while the top 10% has grown by 8.1%.
  - o This highlights the disparity between the income groups and the disproportionate rate of growth among these tiers.
- According to the annual reports of PLFS – since 2017-18, the labour force participation rates have registered an upward growth in percentage points.
  - o From 49.8% in 2017-18, it is 53.5% in 2019-20. In 2018-19 the LFPR was 50.2%.
  - o While there has been a slight increase in the female participation rate over the years, it still continues to be extremely low in comparison to the male participation rate.
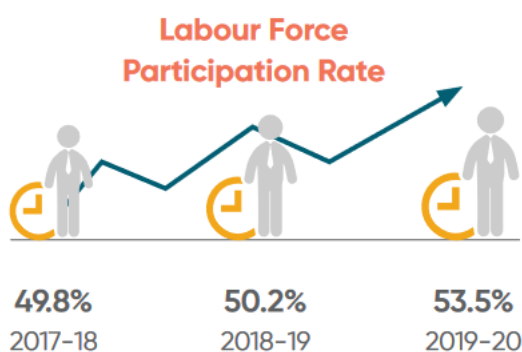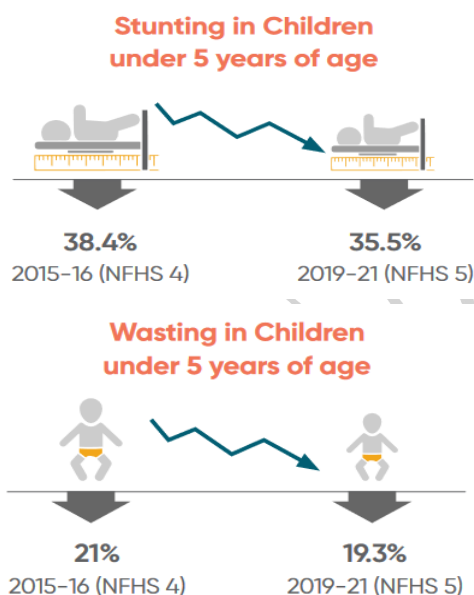

Female Labour Force Participation Rate
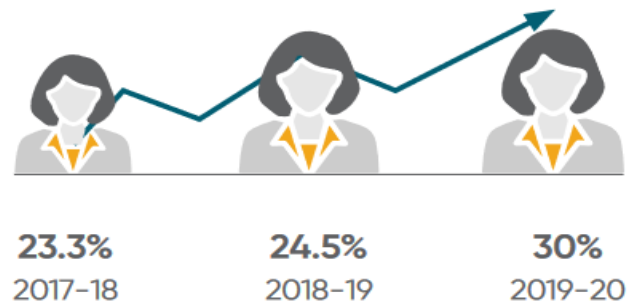
- In 2017-18, Worker Population Ration (WPR) (for 15 years and above) was 46.8%, increasing to 50.9% by 2019-20.
  - o While the marginal increase is a step in the right direction, it still indicates that to exploit the demographic dividend fully, there is a need for enhancing economic progress through job creation.
- The country's Unemployment Rate (UR) in 2019-20 is 4.8%.
  - o This has fallen from 6% in 2017-18.
  - o Nagaland has reported the highest unemployment rate despite a substantial dip in 2018.
  - o Among Union Territories, Lakshadweep has registered the highest unemployment rate reaching 31% in 2018-19.
- In India, 13% of the Monthly Per Capita Expenditure (MPCE) is directed towards out-of-pocket health expenditures as of 2020.
  - o While this is a huge improvement from the 54.78% in 2019, it still falls short of the targeted goal of 7.8%
- While states like Rajasthan (+ 2698), Gujarat (+1888) and Chhattisgarh (+1387) have reported a significant increase in the number of Sub Centres (SCs) of Healthcare built since 2005.
  - o Bihar has a 58% shortfall with only 9112 Sub Centers in place.
  - o Similarly, in Delhi, there is a 59% shortfall with only 12 existing centres when the need is 29 centres.
- 85.9% of people from rural parts are not covered under any health scheme, and 80% in urban cities.
- Excluding childbirth, the averag expenditure in rural regions comes to be around Rs 4,290 in a government hospital and more than Rs 27,000 in private hospitals.
  - o In urban parts, expenditure at a government hospital comes to be nearly Rs 4400 and around Rs 38,000 in private hospitals.

- Nutrition profile among children has improved compared to 2015-16 (NFHS 4), like stunting in children has gone down from 38.4% and wasting from 21%.
  - o As per NFHS 5 (2019-21), 35.5% of children under five years are stunted, 19.3% of children under five years are wasted.

Stunting in Children under 5 years of age

38.4%   35.5%
2015–16 (NFHS 4)   2019–21 (NFHS 5)

Wasting in Children under 5 years of age

21%   19.3%
2015–16 (NFHS 4)   2019–21 (NFHS 5)

- Jharkhand (26.2%) and Bihar (25.6) have the highest rate of women with low BMI,
  - o while Bihar (21.5) and Gujarat (20.9) have the highest rate of men below normal BMI.
- Bihar continues to be the state with the highest population of nutritionally vulnerable children.
  - o As many as 41% of children below 5 years are underweight and 42.9% have stunted growth.
- In India, the percentage of anaemic children under 5 years of age (6-59 months) has increased from 58.6 % in 2015-16 to 67.1% in 2019-21.
  - o Gujrat reports more than the national figure, with 79.7% of children having anaemia.
- An increasing prevalence rate of anaemia among adolescent girls (59.1% from 54.1%) and women of reproductive age (57.2% from 53.2%) is also seen.
  - o In comparison to women, adolescent boys (31.1%) and men (25%) have reported lower rates of anaemia.

Some other key findings though graphs

2019-20

Categories	Number of workers (Regular salaried)	Number of workers (casual workers)	Number of workers (self-employed)
Less than 5,000	21.62%	1.80%	76.58%
5,000 – 10,000	14.33%	13.12%	72.55%
10,000 – 15,000	13.86%	14.86%	71.29%
15,000 – 20,000	15.03%	20.11%	64.85%
20,000 – 50,000	19.35%	31.40%	49.26%
50,000 – 1,00,000	26.40%	28.23%	45.37%
More than 1,00,000	41.59%	14.41%	43.99%

Table 2.1 The table above shows the percentage share of types of workers in different (annual) income categories. (Source: PLFS 2019-20 and author's calculations)

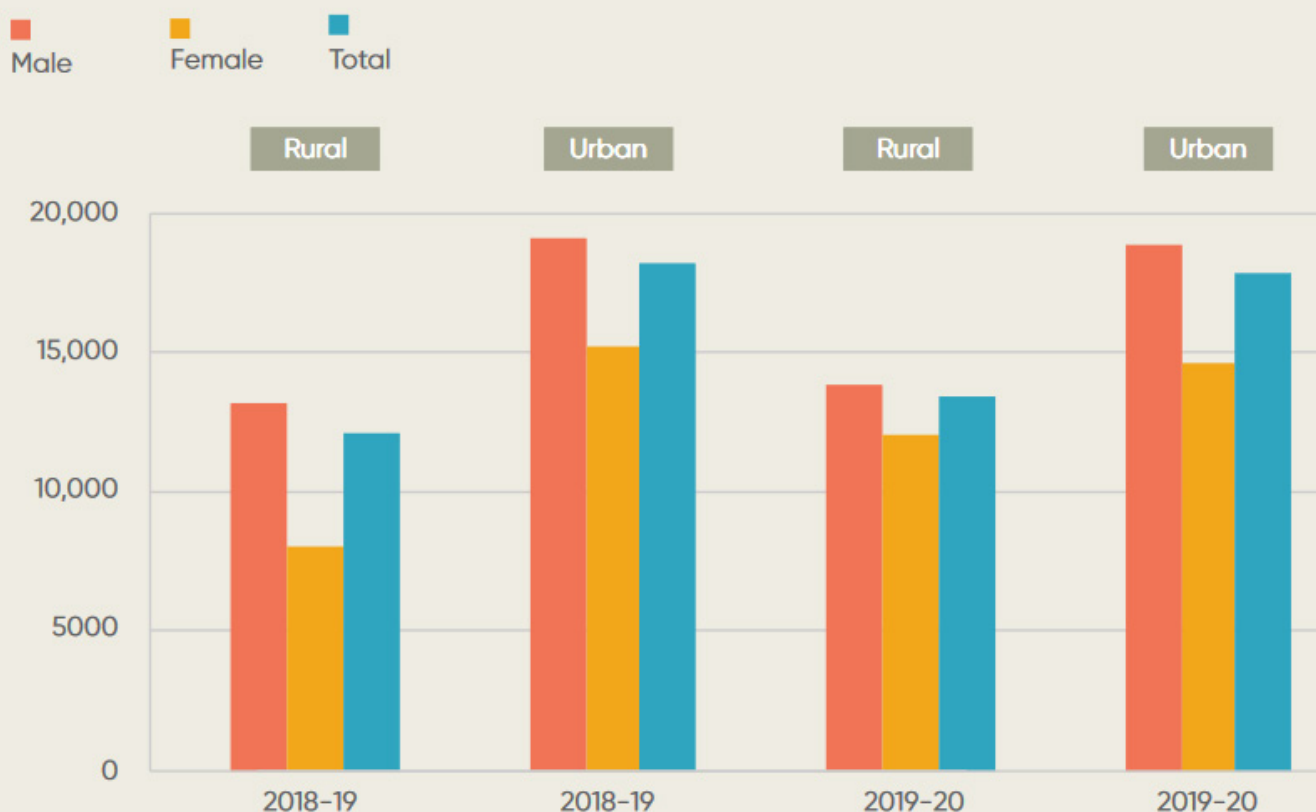Fig.2.5 The graph represents the average gross earnings (monthly) of regular salaried labour category of workers over the sector (rural, urban) and gender across two years. (Source: PLFS 2018-19, 2019-20)
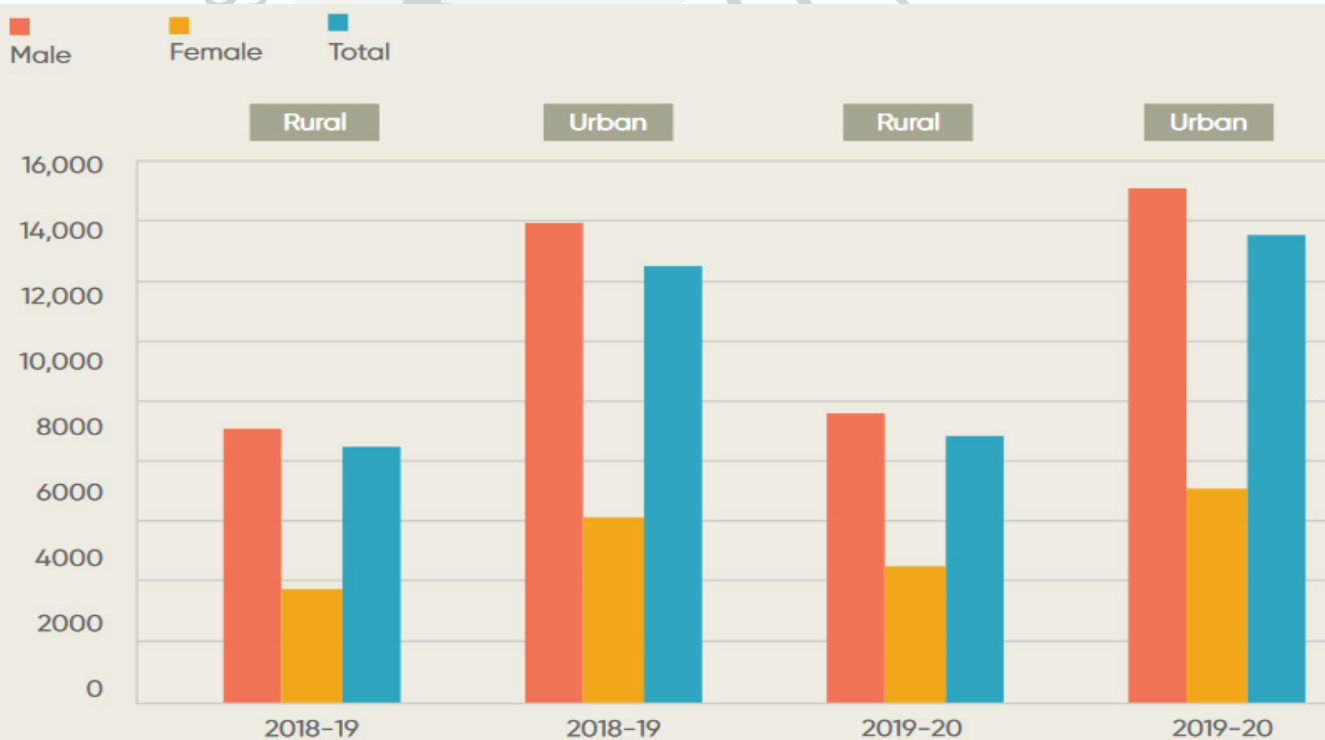

Fig. 2.6 The graph represents the average gross earnings (monthly) of self-employed labour category of workers over the sector (rural, urban) and gender across two years. (Source: PLFS 2018-19, 2019-20)

Ministry of Ayush Organises workshop on Sowa Rigpa

The National Institute of Sowa-Rigpa, Leh, under Ministry of Ayush in collaboration with Namgyal Institute of Tibetology (NIT), is organising workshop on Sowa-Rigpa for the Sowa-Rigpa practitioners from North Eastern States.

- This workshop will be attended by traditional Sowa-Rigpa practitioners from North Eastern States as well as from all over India.

About Sowa Rigpa

- Sowa-Rigpa which is one of the seven Ayush systems, is one of the oldest and well documented systems of traditional medicine in the world.
- The term 'Sowa-Rigpa' is derived from the Bhoti language which means 'Knowledge of Healing'.
- It has been popularly practice in Tibet, Magnolia, Bhutan, some parts of China, Nepal, Himalayan regions of India and few parts of former Soviet Union etc.
- It is also popularly known as Amchi and popularly practiced in India in areas of Ladakh, Himachal Pradesh, Arunachal Pradesh, Sikkim and Darjelling.
- The system is said to be propounded by Lord Buddha which later developed in the Trans-Himalayan region.
- The majority of theory and practice of Sowa-Rigpa is similar to "Ayurveda".
- Sowa-Rigpa is based on the principles of Jung-wa-nga (Skt: panchamahabhutas) and Ngepa-Sum (Skt: Tridosa).
  - Bodies of all the living beings and non-living objects of the universe are composed of Jung-wa-nga; viz Sa, Chu, Me, Lung and Nam-kha (Skt: Prithvi, Jal, Agni, Vayu and Akash).
- According to Sowa- Rigpa, health is an equation of balance of Tridosha and five cosmo-physical energies (Panchmahabuta).
  - Which means balance within the body, balance with the environment, and with the Universe.
- The Sowa-Rigpa practice has been harmoniously incorporated into the socio-cultural framework of the Trans-Himalayan region.
  - In this region, every village has an Amchi (practitioner of Sowa-Rigpa) family to look after public health.
  - Sowa-Rigpa has been practiced in particular Amchi families for generations, and in some cases is transferred from the Guru to his disciple.
  - The father Amchi or Guru trains his

student and after the completion of his education the young Amchi has to appear in a community exam.
- After passing the exam, the Amchi becomes a custodian of the Sowa-Rigpa practice.

ASHAs - awarded WHO's Global Health Leaders Award-2022

India's one million all-women ASHA workers - awarded WHO Director-General's Global Health Leaders Award-2022 at the 75th World Health Assembly.

- They were awarded and honoured by WHO for their 'outstanding' contribution to advancing global health, demonstrated leadership and commitment to regional health issues.

Key Points

- ASHA workers ensured that those living in rural poverty can access primary health care services, throughout the COVID-19 pandemic.
- ASHAs worked to provide various healthcare benefits such as:
  - maternal care and immunization for children against vaccine-preventable diseases;
  - community health care;
  - treatment for hypertension and tuberculosis; and
  - core areas of health promotion for nutrition, sanitation, and healthy living.

About Accredited Social Health Activist (ASHA)

- ASHA (which means hope in Hindi) are more than 1 million female volunteers in India.
- One of the key components of the National Rural Health Mission is to provide every village in the country with a trained female community health activist ASHA.
- Selected from the village itself and accountable to it, the ASHAs are trained to work as an interface between the community and the public health system.

Digilocker services on WhatsApp

In a major initiative to make Government services accessible, inclusive and simple, MyGov announced that citizens will now be able to use the MyGov Helpdesk on WhatsApp.

- Government has been working for "Ease of Living" through Digital India.

Key Points

- MyGov Helpdesk on WhatsApp is a major step to ensure governance and government services at the fingertips of citizens.
- MyGov Helpdesk, will now offer a suite of services for integrated citizen support and efficient governance, starting with Digilocker services.
- The new service will enable citizens to access the following documents with ease and convenience, from the safety of their homes:
    - PAN card
    - Driving License
    - CBSE Class X Passing Certificate
    - Vehicle Registration Certificate (RC)
    - Insurance Policy - Two Wheeler
    - Class X Marksheet
    - Class XII Marksheet
    - Insurance Policy Document (Life and Non life available on digilocker)

Note: WhatsApp users across the country can use the chatbot by simply sending 'Namaste or Hi or Digilocker' to the WhatsApp number +91 9013151515.

- MyGov Helpdesk was earlier known as MyGov Corona Helpdesk. It was launched during COVID to help citizens.

MoHUA launches Swachh Survekshan 2023

Ministry of Housing and Urban Affairs (MoHUA) has launched the eighth edition of Swachh Survekshan (SS) – SS 2023 under Swachh Bharat Mission Urban 2.0.

- Designed with the theme of 'Waste to Wealth' as its driving philosophy, SS 2023 is curated towards achieving circularity in waste management.

Key Points

- The survey would give priority to the principle of 3Rs – Reduce, Recycle and Reuse.
- The theme of SS 2023, which is 'Waste to Wealth'.
    - It is aligned to SBMU 2.0's commitment of promoting circularity in waste management, which is one of key objectives under the Mission.
- In SS 2023, additional weightage has been given to following:
    - source segregation of waste,
    - enhancement of waste processing capacity of cities to match the waste generation and
    - reduction of waste going to the dumpsites.
- Indicators have been introduced with additional weightage on emphasizing the need for phased reduction of plastic, plastic waste processing, encourage waste to wonder parks and zero waste events.
- Ranking of Wards within the cities is also being promoted through Swachh Survekshan 2023.
- The Mayors of the cities are being encouraged to participate in the ranking and felicitate the cleanest wards.
- In addition to the above the cities would also be assessed on dedicated indicators on the following issue:
    - 'open urination' (Yellow Spots) and
    - 'open spitting' (Red Spots), being faced by the cities.
- Further, this year MoHUA is also promoting cleaning of back lanes of the residential and commercial areas.

About Swachh Survekshan

- Swachh Survekshan, conducted by MoHUA since 2016, is the world's largest urban sanitation and cleanliness survey.
- It has been instrumental in fostering a spirit of healthy competition among towns and cities to improve their service delivery to citizens and towards creating cleaner cities.
- It has been conducted under the ambit of the Swachh Bharat Mission (Urban).
- It also aims to encourage large scale citizen participation and create awareness amongst all sections of society.
  - About the importance of working together towards making towns and cities a better place to live in.

Note: The Ministry of Urban Development, Government of India takes up the Swachh Survekshan in urban areas and the Ministry of Drinking Water and Sanitation in rural areas.

- The Quality Council of India (QCI) has been commissioned the responsibility of carrying out the assessment.

National Achievement Survey (NAS) 2021 report

The Department of School Education and Literacy, Ministry of Education released the National Achievement Survey (NAS) 2021 report.
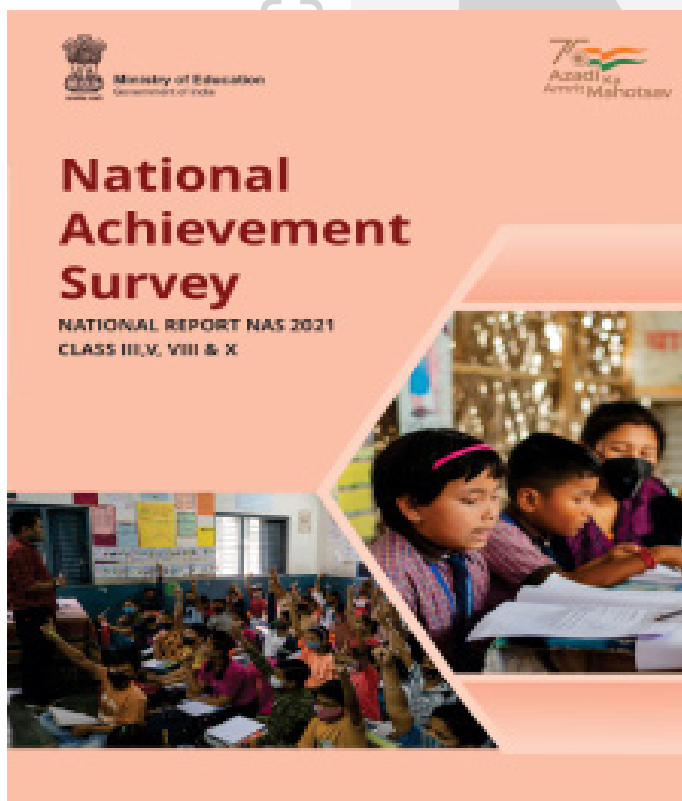
- It reflects the overall assessment of school education system.

Key Points

- The report assesses the health of school education system in the country.
  - By conducting comprehensive evaluation survey of children's learning competencies at classes III, V, VIII and X with a cycle period of three years.
- The last NAS was held in 2017.
- The NAS 2021 was held at all India level and covered the following:
  - (a) Government Schools (Central Government and State Government);
  - (b) Government Aided Schools; and
  - (c) Private Unaided Schools.
- Subjects covered are:
  - Language, Mathematics & EVS for class 3 & 5;
  - Language, Mathematics, Science & Social Science for class 8 and
  - Language, Mathematics, Science, Social Science and English for class 10.
- About 34 lakh students of 1.18 lakh schools in 720 districts from both rural and urban areas have participated.
- The National Report Card has been released and placed in the public domain on nas.gov.in.
- The objective of NAS 2021 is to evaluate children's progress and learning competencies as an indicator of the efficiency of the education system.
  - So as to take appropriate steps for remedial actions at different levels.
- It will help to unravel the gaps in learning.
  - It will also support state/UT governments in developing long term, midterm and short-term interventions to improve learning levels.
- This nation-wide survey was administered by the CBSE in one single day at the same time.
- The survey was managed through the technology platform designed and developed by National Informatics Centre (NIC).

National Achievement Survey (NAS) 2021
held on 12-11-2021

Improving learning levels with long-term, mid-term & short-term interventions

Report is available on **nas.gov.in**

f @EduMinOfIndia   @EduMinOfIndia   HRDMinistry   @eduminofindia

National Achievement Survey (NAS) 2021
held on 12-11-2021

Conducted in **22 regional languages** Across the nation

Report is available on **nas.gov.in**

f @EduMinOfIndia   @EduMinOfIndia   HRDMinistry   @eduminofindia

National Achievement Survey (NAS) 2021
held on 12-11-2021

Survey conducted for **Grades 3, 5, 8** and **10**

Report is available on **nas.gov.in**

f @EduMinOfIndia   @EduMinOfIndia   HRDMinistry   @eduminofindia

National Achievement Survey (NAS) 2021
held on 12-11-2021

Covered **34 Lakh** students of **1.18 Lakh** schools across the nation

Report is available on **nas.gov.in**

f @EduMinOfIndia   @EduMinOfIndia   HRDMinistry   @eduminofindia

Jal Jeevan Mission Achieves 50% Completion Milestone

The country has achieved the milestone of 50% rural households having access to tap water connections.

- Goa, Telangana, A&N Islands, D&N Haveli and Daman & Diu, Puducherry and Haryana have already achieved 100% household connections.

Total rural households on 24/06/2022	Rural household tap connections on 24/06/2022
19,21,78,113	**9,70,81,756**
	50.52 %

Key Points

- Over 9.59 Crore rural households spread across States/ UTs are getting water within their premises.
- Punjab, Gujarat, Himachal Pradesh and Bihar have coverage of more than 90% and are progressing fast towards attaining the status of 'Har Ghar Jal'.
- At the time of launch Jal Jeevan Mission in 2019, only 3.23 Crore households i.e. 17% of the rural population had access to drinking water through taps.

About Jal Jeevan Mission

Jal Jeevan Mission, is envisioned to provide safe and adequate drinking water through individual household tap connections by 2024 to all households in rural India.

- The programme will also implement source sustainability measures as mandatory elements, such as:
    - recharge and reuse through grey water management, water conservation, rain water harvesting, etc.
- The Jal Jeevan Mission will be based on a community approach to water.

- It is being implemented by the Department of Drinking Water & Sanitation, Ministry of Jalshakti.
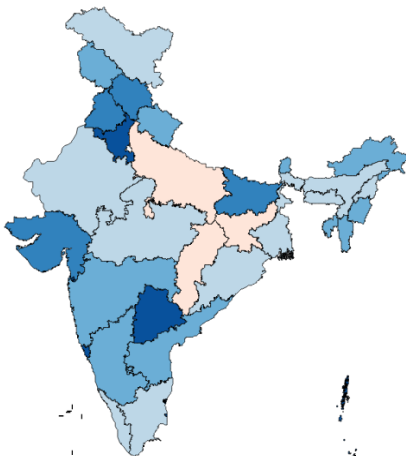
Components under JJM

The following components are supported under JJM:

- Efforts should be made to source funds from different sources/ programmes and convergence is the key.
- Development of in-village piped water supply infrastructure to provide tap water connection to every rural household.
- Development of reliable drinking water sources and/ or augmentation of existing sources to provide long-term sustainability of water supply system.
- Wherever necessary, bulk water transfer, treatment plants and distribution network to cater to every rural household.
- Technological interventions for removal of contaminants where water quality is an issue.
- Greywater management.

| 0%-10% | 11%-25% | 26%-50% | 51%-75% | 76%-<100% | 100% |

NHA launches online public dashboard for Ayushman Bharat Digital Mission

The National Health Authority (NHA) under its flagship scheme of Ayushman Bharat Digital Mission (ABDM) has launched a public dashboard for near real-time information on the scheme.

- The ABDM public dashboard displays detailed information on the core registries under the mission.

About Ayushman Bharat Digital Mission

- The Ayushman Bharat Digital Mission (ABDM) aims to develop the backbone necessary to support the integrated digital health infrastructure of the country.

- It will bridge the existing gap amongst different stakeholders of Healthcare ecosystem through digital highways.

ABDM Components

- ABHA Number:
  - Ayushman Bharat Health Account (ABHA) Number is a hassle-free method of accessing and sharing health records digitally.
  - It enables interaction with participating healthcare providers.
  - This enables user to receive digital lab reports, prescriptions and diagnosis seamlessly from verified healthcare professionals and health service providers.
- Healthcare Professionals Registry (HPR)
  - It is a comprehensive repository of all healthcare professionals involved in delivery of healthcare services across both modern and traditional systems of medicine.
  - Enrolling in the Healthcare Professionals Registry will enable them to get connected to India's digital health ecosystem.
- Health Facility Registry (HFR)
  - It is a comprehensive repository of health facilities of the nation across different systems of medicine.
  - It includes both public and private health facilities including hospitals, clinics, diagnostic laboratories and imaging centres, pharmacies, etc.
- Unified Health Interface (UHI)
  - UHI is envisioned as an open protocol for various digital health services.
  - UHI Network will be an open network of End User Applications (EUAs) and participating Health Service Provider (HSP) applications.
  - UHI will enable a wide variety of digital health services between patients

and health service providers (HSPs) including appointment booking, tele-consultation, service discovery, and others.

Note: NHA is leading the implementation for Ayushman Bharat Digital Mission (ABDM).

About National Health Authority (NHA)

National Health Authority (NHA) is the apex body responsible for implementing India's flagship public health insurance/assurance scheme called "Ayushman Bharat Pradhan Mantri Jan Arogya Yojana".

- National Health Authority is the successor of the National Health Agency.
- It is an attached office of the Ministry of Health and Family Welfare with full functional autonomy.
- NHA is governed by a Governing Board chaired by the Union Minister for Health and Family Welfare.
- It is headed by a Chief Executive Officer (CEO), an officer of the rank of Secretary to the Government of India, who manages its affairs.
- To implement the scheme at the State level, State Health Agencies (SHAs) in the form of a society/trust have been set up by respective States.

Prime Minister's Employment Generation Programme (PMEGP)

The PMEGP has now been approved for continuation over the 15th Finance Commission Cycle for five years from 2021-22 to 2025-26.

About PMEGP: Background

- The GoI had approved the introduction of a new credit linked subsidy programme called Prime Minister's Employment Generation Programme (PMEGP).
- This was done by merging two schemes that were in operation till 31.03.2008.
  - Prime Minister's Rojgar Yojana (PMRY) and Rural Employment Generation Programme (REGP).
- PMEGP is a central sector scheme administered by the Ministry of Micro, Small and Medium Enterprises (MoMSME).
- At the national level, the Scheme is being implemented by Khadi and Village Industries Commission (KVIC).
  - KVIC is a statutory organization under the administrative control of the Ministry of MSME as the single nod-

al agency.

- At the State level, the Scheme will be implemented through State KVIC Directorates, District Industries Centres (DICs) and banks.
- The Government subsidy under the scheme is routed by KVIC through the identified banks for eventual distribution to the beneficiaries.

Ministry of Micro, Small and Medium Enterprises, Government of India

Prime Minister's Employment Generation Programme PMEGP

Khadi India

- Objectives:
  - To generate continuous and sustainable employment opportunities in Rural and Urban areas of the country
  - To facilitate participation of financial institutions for higher credit flow to micro sector.
- Eligibility:
  - Individuals above 18 years of age
  - VIII Std. pass required for project above Rs.10.00 lakhs in manufacturing and above Rs. 5.00 lakhs for Service Sector
  - Self Help Groups and Charitable Trusts
  - Institutions Registered under Societies Registration Act- 1860
  - Production based Co-operative Societies
- Nature of Assistance:
  - The maximum cost of the project/unit admissible in manufacturing sector is Rs.25 lakhs and in business/service sector is Rs.10 lakhs.

About PMEGP: Changes

Following major modifications/improvements have been made in the existing Scheme:

- Increasing the maximum project cost from existing Rs.25 lakh to Rs. 50 lakh for manufacturing units and from Rs.10 lakh to Rs.20 lakh for service units.
- All Implementing Agencies are allowed to receive and process applications in all areas irrespective of the rural or urban category.
- Areas falling under Panchayti Raj institutions to be accounted under rural area, where as ar-

eas under Municipality to be treated as urban area.

- PMEGP applicants under aspirational districts and transgender will be treated as Special category applicants and entitled for higher subsidy.
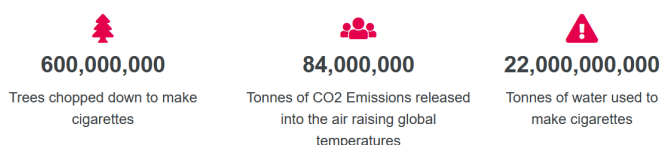
World No Tobacco Day

National Cadet Corps (NCC) organised rallies, enacted street plays, distributed leaflets and used all available means to sensitise the masses to stay away from tobacco.

- This year's World No Tobacco Day theme is "Tobacco: Threat to our environment."

POISONING OUR PLANET

#TobaccoExposed

Throughout its lifecycle, tobacco pollutes the planet & damages the health of all people.

About World No Tobacco Day

- The Member States of the World Health Organization created World No Tobacco Day in 1987.
- This was done to draw global attention to the tobacco epidemic and the preventable death and disease it causes.
- In 1987, the World Health Assembly passed Resolution WHA40.38, calling for 7 April 1988 to be "a world no-smoking day."
- In 1988, Resolution WHA42.19 was passed, calling for the celebration of World No Tobacco Day, every year on 31 May.
- The harmful impact of the tobacco industry on the environment is vast and growing.
  - This adds unnecessary pressure to our planet's already scarce resources and fragile ecosystems.
- Tobacco kills over 8 million people every year and destroys our environment, further harming human health.
- Worldwide, at least 14 million young people age 13 to 15 currently use tobacco products.

600,000,000
Trees chopped down to make cigarettes

84,000,000
Tonnes of CO2 Emissions released into the air raising global temperatures

22,000,000,000
Tonnes of water used to make cigarettes

SHRESHTA Scheme

The government has approved a new scheme named SHRESHTA (Residential Education for Students in High Schools in Targeted Areas).

- The purpose of the scheme is to provide seats for the meritorious SC boys and girls in the best private residential schools in the country.

Key Points

- Every year, it is expected that about 3000 students would be selected for admission in Class 9 and Class 11 under the scheme.
- The erstwhile Central Sector Scheme of "Grant-in-Aid to Voluntary and other Organizations working for Scheduled Castes" has been revised w.e.f. 2021-22 as SHRESHTA.
- Implementation agency: The Department of Social Justice & Empowerment, Ministry of Ministry of Social Justice & Empowerment.
- Grants are directly disbursed to the schools covering school fee and hostel fees for the students.
- The students have to apply online for a National Entrance Test for to get benefits from the scheme.
- The entrance exam - SHRESHTA (NETS) is organised by the National Testing Agency (NTA).
- The scheme is only for SC candidates whose parental annual income is upto Rs. 2.5 lacs.
- Only those candidates who have passed or are appearing in Class VIII/X in the given academic session can apply for taking admission in Class IX/XI.

'eSanjeevani' integrated with Ayushman Bharat Digital Mission

The National Health Authority (NHA) announces the successful integration of eSanjeevani with its flagship scheme – Ayushman Bharat Digital Mission (ABDM).

- The users of eSanjeevani can now create their 14-digit unique Ayushman Bharat Health Account (ABHA) and use it to link their existing health records.

Ministry of Health and Family Welfare

eSanjeevani™
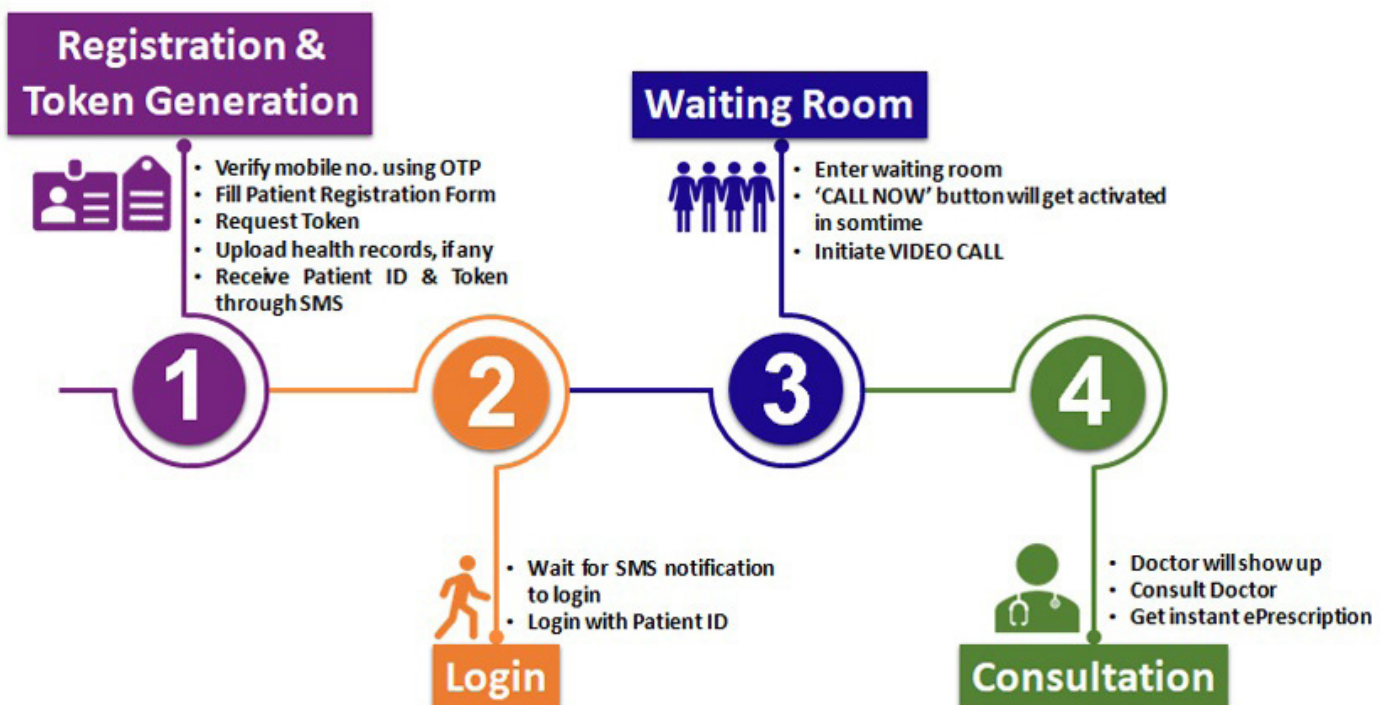An integrated telemedicine solution

Key Points

- The users would also be able to share their health records with doctors on eSanjeevani.
  - This will help in better clinical decision making and ensuring the continuum of care.
- ABDM aims to build digital highways to bridge the gaps in existing digital health solutions and stakeholders in India.
- The integration of eSanjeevani with ABDM is one such example.
- The 22 crore ABHA holders can now link and store their health records created via eSanjeevani directly in the health lockers of their choice.
- The users can also share their previously linked health records with the doctors on eSanjeevani making the entire consultation process paper-less.

About eSanjeevani

National Teleconsultation Service (eSanjeevani) of Ministry of Health and Family Welfare is first of its kind online OPD service offered by a country government to its citizens.

- 'eSanjeevani', is a web-based comprehensive telemedicine solution.
- It is modeled on 'Sanjeevani' CDAC Mohali's' flagship integrated telemedicine solution.
- 'eSanjeevani' extends the reach of specialized healthcare services to masses in both rural areas and isolated communities.
- It aims to provide healthcare services to patients in their homes.

- Safe & structured video based clinical consultations between a doctor in a hospital and a patient in the confines of his home are being enabled.
- Besides enhancing quality of medical services, it also addresses issues pertaining to uneven distribution and shortage of infrastructural as well as human resources.
- eSanjeevani also aims to make healthcare services equitable by bridging the digital divide that exists between the urban vs. rural, rich vs. poor etc.
- eSanjeevani can also be used to provide medical education to interns , people across various Common Service Centers (CSCs), etc.
- eSanjeevani service is available in two variants.
- The first one is eSanjeevani Ayushman Bharat-Health and Wellness Centre (AB-HWC) – the Doctor-to-Doctor telemedicine service.
  - Through this the beneficiaries visiting a HWC can virtually connect to doctors/ specialists in the Hub.
  - This hub could be at tertiary healthcare facility/hospital/medical college.
  - This enables the government to provide general and specialised health services in rural areas and isolated communities
- The second variant, eSanjeevani OPD is serving patients across the country, connecting them directly to doctors from the comforts of their homes.
- Both versions – eSanjeevani AB-HWC and eSanjeevani OPD have been integrated with ABDM platform.

Registration & Token Generation (1)
- Verify mobile no. using OTP
- Fill Patient Registration Form
- Request Token
- Upload health records, if any
- Receive Patient ID & Token through SMS

Login (2)
- Wait for SMS notification to login
- Login with Patient ID

Waiting Room (3)
- Enter waiting room
- 'CALL NOW' button will get activated in somtime
- Initiate VIDEO CALL

Consultation (4)
- Doctor will show up
- Consult Doctor
- Get instant ePrescription

4th State Food Safety Index

Union Ministry for Health and Family Welfare released Food Safety and Standards Authority of India (FSSAI)'s 4th State Food Safety Index (SFSI).

- It aims to measure the performance of States across five parameters of food safety.

Key Points

- SFSI was started from 2018-19 with the aim of creating a competitive and positive change in the food safety ecosystem in the country.
- The index will help in providing safe and nutritious food to our citizens.
- The food safety parameters are broadly classified under following 5 significant factors:
  - o Human Resources and Institutional Data (with 20% weightage)
  - o Compliance (with 30% weightage)
  - o Food Testing- Infrastructure and Surveillance (with 20% weightage)
  - o Training and Capacity Building (with 10% weightage)
  - o Consumer Empowerment (with 20% weightage)
- The States/UTs are classified into 3 categories namely Large States, Small States and UTs for the evaluation and assessment.
- This year, among the larger states, Tamil Nadu was the top ranking state, followed by Gujarat and Maharashtra.
- Among the smaller states, Goa stood first followed by Manipur and Sikkim.
- Among UTs, Jammu & Kashmir, Delhi and Chandigarh secured first, second and third ranks.

The State Food Safety Index ranks States/UTs annually on five parameters of food safety through rigorous evaluation process.

Ayush Institute gets NABL Accreditation

The Department of Biochemistry and Pathology of National Ayurveda Research Institute for Panchakarma (NARIP), Cheruthuruthy, Kerala has got NABL M(EL)T Accreditation.

- This is the first Institute under CCRAS to get NABL accreditation for its clinical laboratory services.

Key Points

- The certificate of 'NABL Medical (Entry Level) Testing Labs' has been issued to NARIP-Department of Biochemistry and Pathology.
- This accreditation of laboratory ensures that citizens get quality health care service especially for those residing in villages, small towns.
- As an Ayurveda research institute, the scientific data released from this accredited lab provides trust and confidence for its accuracy and precision among scientific communities.

About NARIP

- NARIP is one of the premier research Institute under the Central Council for Research in Ayurvedic Sciences, Ministry of AYUSH, Government of India.
- The Institute was started on 21st June, 1971.
- The Institute has a Pharmacy which not only meets the requirements of the Institute but also provides medicines to other Institutes/Units.
- The Quality Control laboratory of the Institute ensures that the medicines proposed in the Pharmacy are as per prescribed standards.

About NABL

National Accreditation Board for Testing and Calibration Laboratories (NABL) is an accreditation body, with its accreditation system established in accordance with ISO/ IEC 17011.

- NABL provides accreditation to Conformity Assessment Bodies in India.
- NABL is self-financing and charges fees to Conformity Assessment Bodies to cover operational costs and other expenditure.
- NABL offers accreditation services in a non-discriminatory manner.

CiSS application under Baal Swaraj portal

The National Commission for the Protection of Child Rights (NCPCR) has launched a "CiSS application" under the Baal Swaraj portal.

- This objective is to help in the rehabilitation process of Children in Street Situations (CiSS).

Key Points

- Baal Swaraj is a portal launched by NCPCR for online tracking and digital real-time monitoring mechanism of children in need of care and protection.
- The portal has two functions- COVID care and CiSS.
- COVID Care link caters to the children who have lost either or both parents due to COVID-19 or otherwise post March 2020.
- The CiSS application is used for receiving data of children in street situations from all the states and union territories.
    - The data is then used for tracking their rescue and rehabilitation process.
- The initiative is taken under the direction of the Supreme Court of India.
- The platform serves to collect data and report to the District Child Protection Officer (DCPO) for them to take necessary action.
- The Standard Operating Procedure for Care and Protection of Children in Street Situations 2.0 categorizes any child under 'Children in Street Situation' if:
    - the child is living on the streets alone,
    - living on the streets during the day, or
    - living on the streets with the family.
- The root cause of this phenomenon is the migration of families from rural to urban areas in search of a better standard of living.
- It also provides a platform for professionals and organizations to provide any help that they can to children in need.
- Help can be provided in the form of open shelters, counselling services, medical services, sponsorships, de-addiction services, education services, etc.
- The organizations and institutions that can utilize the platform are following:
    - Non-Government Organization,
    - Civil Society Organization,
    - higher educational or technical institutions, Foundation, Society, or a Trust.

Guidelines on Prevention of Misleading Advertisements

The Central Consumer Protection authority (CCPA) has notified 'Guidelines for Prevention of Misleading Advertisements and Endorsements for Misleading Advertisements, 2022'.

- The guidelines have been with an objective to curb misleading advertisements and protect the consumers, who may be exploited or affected by such advertisements.

Key Points

- The guidelines seek to ensure that consumers are not being fooled with unsubstantiated claims, exaggerated promises, and misinformation.
- In exercise of the powers conferred by section 18 of the Consumer Protection Act, 2019, to CCPA, the Guidelines were notified
- Misleading advertisement has already been defined under section 2(28) of the Consumer Protection Act, 2019.

About Central Consumer Protection authority (CCPA)

The authority was constituted under Section 10(1) of The Consumer Protection Act, 2019.

- The Act replaced The Consumer Protection Act, 1986, and seeks to widen its scope in addressing consumer concerns.
- The objective of the Central Consumer Protection Authority (CCPA) is to promote, protect and enforce the rights of consumers as a class.
- It is empowered to take the following course of action:
  - conduct investigations into violation of consumer rights and institute complaints / prosecution,
  - order recall of unsafe goods and services,
  - order discontinuation of unfair trade practices and misleading advertisements,
  - impose penalties on manufacturers/endorsers/publishers of misleading advertisements.
- The authority comes under the Department of Consumer Affairs.

World of Work Summit

Union Minister For Labour &Employment Participated in World Of Work Summit In Geneva.

- The theme of the discussion was "Tackling multiple global crises: promoting human centered recovery and resilience".

Key Points

- The Summit discussed how to tackle the labour and social consequences of the food, energy and financial crises with human-centred approaches
- The summit was held during the 110th International Labour Conference.
- The discussion also focussed on multiple challenges that the world of work is facing such as:
  - worsening inequalities, demographic realities, unequal technological progress, informality, and climate change.

About International Labour Conference

- The broad policies of the ILO are set by the International Labour Conference, which meets once a year in June, in Geneva, Switzerland.
- This annual Conference brings together governments', workers' and employer's delegates of the ILO member States.
- Often called an international parliament of labour, the Conference establishes and adopts international labour standards.

About International Labour Organisation (ILO)

The only tripartite U.N. agency, since 1919 the ILO brings together governments, employers and workers of 187 member States.

- The ILO was created in 1919, as part of the Treaty of Versailles that ended World War I.
- In 1946, the ILO became a specialized agency of the United Nations.
- It works to set labour standards, develop policies and devise programmes promoting decent work for all women and men.

8th BRICS Environment Ministers Meeting

Union Minister of Environment, Forest and Climate Change participated in the 8th BRICS Environment Ministers Meeting.

- The meeting was held virtually under Presidency of People's Republic of China.
- The theme of the Meeting was "Foster High-Quality BRICS Partnership, Usher in a New Era for Global Development".

Investment Incentive Agreement

The Government of India and the Government of the United States of America has signed an Investment Incentive Agreement (IIA) at Tokyo, Japan.

- This IIA supersedes the Investment Incentive Agreement signed between the Government of India and the Government of the United States of America in the year 1997.

Key Points

- IIA has been signed, to keep pace with the additional investment support programmes, offered by the DFC, such as debt, equity investment, investment guaranty etc.
- It is expected that signing of IIA would lead to enhanced Investment support provided by DFC in India, which shall further help in India's development.

Note: DFC is a development finance agency of Government of USA, as a successor agency of the erstwhile Overseas Private Investment Corporation (OPIC).

Indo-Pacific Economic Framework

Prime Minister of India participated in an event in Tokyo in which the Indo-Pacific Economic Framework for Prosperity (IPEF) was launched.

- It was first initiated by the President of USA at the October 2021 East Asia Summit.

What is IPEF?

- India agreed to be a part of the Indo-Pacific Economic Framework for Prosperity (IPEF), a U.S.-led economic grouping comprising 13 countries including the US.
- IPEF include Australia, Brunei, India, Indonesia, Japan, South Korea, Malaysia, New Zealand, the Philippines, Singapore, Thailand and Vietnam.

- Seven of the 10 ASEAN countries agreed to join the consultations.
  - The seven ASEAN countries are: Brunei, Indonesia, Malaysia, the Philippines, Singapore, Thailand and Vietnam.
  - The four Quad countries, India, the US, Japan, and Australia are naturally a part of this, followed by New Zealand and South Korea.
- All 13 are East Asia Summit members and except for India and the US, all are in the Regional Comprehensive Economic Partnership (RCEP) as well.
- Together, these countries account for 40 per cent of the global GDP.
- The economic framework broadly rests on four pillars:
  - trade,
  - supply chain resilience,
  - clean energy and decarbonisation, and
  - taxes and anti-corruption measures.
- The U.S. Trade Representative (USTR) will be spearheading the trade pillar.
- The others (I.e., supply chain resilience, clean energy and decarbonisation, and taxes and anti-corruption measures) will fall under the purview of the U.S. Department of Commerce.
- On the trade front, the endeavour is to establish "high-standard, inclusive, free, and fair-trade commitments".
- As for supply chain resilience-
  - The framework aspires to secure access to key raw and processed materials, semiconductors, critical minerals and clean energy tech, particularly for crisis response measures.
- The clean energy, decarbonisation and infrastructure pillar would provide-
  - technical assistance and help mobilise finance,
  - including concessional finance,
  - to improve competitiveness and enhance connectivity
  - by supporting countries in the development of sustainable and durable infrastructure for adopting renewable energy.
- Lastly, the pillar on tax and anti-corruption is aimed at promoting fair competition by enforcing robust tax, anti-money laundering and anti-bribery regimes.

How do members participate?

- Countries are free to join (or not join) initiatives under any of the stipulated pillars.
- But once they enrol, they are expected to adhere to all commitments.
- Additionally, the framework would be open to other countries-
  - If they want to join in the future provided they are willing to adhere to the stipulated goals and other necessary obligations.

Note: The Biden Administration is projecting IPEF as the new US vehicle for re-engagement with East Asia and South East Asia.

About Regional Comprehensive Economic Partnership (RCEP)

- The Regional Comprehensive Economic Partnership (RCEP) is a free trade agreement (FTA) between the ten member states of the ASEAN and its five FTA partners.
- The ten members of ASEAN are Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Vietnam.
- The five trading partners are Australia, China, Japan, New Zealand and Republic of Korea.
- The pact aims to cover trade in goods and services, intellectual property, etc.

India-Japan Relations

The Prime Minister of India is on a trip to Japan to attend the meeting of the Quad group.
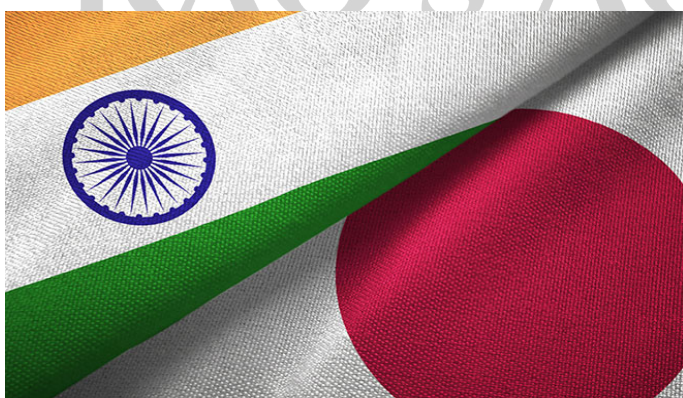
About India-Japan Relations

- Exchange between Japan and India is said to have begun in the 6th century when Buddhism was introduced to Japan.
- After World War II, in 1949, Indian Prime Minister Jawaharlal Nehru donated an Indian elephant to the Ueno Zoo in Tokyo.
- Japan and India signed a peace treaty and established diplomatic relations on 28th April, 1952.
- This treaty was one of the first peace treaties Japan signed after World War II.
- In the post World War II period, India's iron ore helped a great deal Japan's recovery from the devastation.
- Following Japanese Prime Minister Nobusuke Kishi's visit to India in 1957, Japan started providing yen loans to India in 1958.
  - This was the first yen loan aid extended by Japanese government.
- Prime Minister Yoshiro Mori's visit to India in August 2000 provided the momentum to strengthen the Japan-India relationship.
  - Mr. Mori and Prime Minister Atal Bihari Vajpayee decided the establishment of "Global Partnership between Japan and India".
- Since Prime Minister Junichiro Koizumi's visit to India in April 2005, Japan-India annual summit meetings have been held in respective capitals.
- When Prime Minister Manmohan Singh visited Japan in December 2006, Japan-India relationship was elevated to the "Global and Strategic Partnership".
- In September 2014, Prime Minister Narendra Modi paid an official visit to Japan and had a summit meeting with Prime Minister Shinzo Abe.
  - They concurred to upgrade the bilateral relationship to "Special Strategic and Global Partnership."
- In 2015, both the leaders announced "Japan and India Vision 2025 Special Strategic and Global Partnership'.
  - It aimed at 'Working Together for Peace and Prosperity of the Indo-Pacific Region and the World'.
- Apart from the Annual Summits, the annual Foreign Minister level Strategic Dialogue, NSA-level Dialogue, and Ministerial level 2+2, etc. also happen regularly.
  - In November 2019, the first "2+2" meeting was held in New Delhi.
- The Act East Forum, established in 2017, aims to provide a platform for India-Japan collaboration.
  - This is under the rubric of India's "Act East Policy" and Japan's "Free and Open Indo-Pacific Vision".

Economic Relations

- In recent years, economic relationship between Japan and India have steadily expanded and deepened.
- India was the 18th largest trading partner for Japan, and Japan was the 12th largest trading partner for India in 2020.
- Also, direct investment from Japan to India has been increased, and Japan was the 4th largest investor for India in FY2020.
- Japanese private-sector's interest in India is rising, and, currently, about 1,455 Japanese companies have branches in India.
- India has been the largest recipient of Japanese ODA Loan for the past decades.
    o Delhi Metro is one of the most successful examples of Japanese cooperation through the utilization of ODA.
- India's primary exports to Japan have been petroleum products, chemicals, elements, compounds, non-metallic mineral ware, etc.
- India's primary imports are machinery, electrical machinery, iron and steel products, plastic materials, non-ferrous metals, parts of motor vehicles, etc.
- Number of Indian companies working in Japan is also increasing with number now crossing more than 100.

Quad Leaders' Summit

Prime Minister of India participated in the second in-person Quad Leaders' Summit in Tokyo, Japan.

- This was the fourth interaction of the Leaders since their first virtual meeting in March 2021.

Key Points

- The Leaders reiterated their shared commitment to a free, open and inclusive Indo-Pacific.
- The Leaders also took stock of ongoing Quad collaboration and their vision for the future.
- A Quad Climate Change Action and Mitigation Package (Q-CHAMP) was announced.
    o It aims to strengthen efforts towards green shipping, clean energy including green hydrogen and climate and disaster resilient infrastructure.
- As part of ongoing work related to critical and emerging technologies, Quad's Common Statement of Principles on Critical Technology Supply Chains was launched.
- A Quad Partnership on Humanitarian Assistance and Disaster Relief (HADR) for the Indo-Pacific was also announced by the Leaders.
- The Leaders agreed to provide countries in the region resources on earth observation data through a Quad satellite data portal.
    o This will help track climate events, disaster preparedness and sustainable use of marine resources.
    o India will play a proactive role in this effort given its longstanding capabilities in using space based data and technologies for inclusive development.
- Next Quad Summit will be hosted by Australia in 2023.

About QUAD

The Quad is an informal multilateral grouping of India, the U.S., Australia, and Japan aimed at cooperation for a free and open Indo-Pacific region.

- The region, composed of two oceans and spanning multiple continents is a hub of maritime trade and naval establishments.
- While not stated explicitly by the leaders, one of the major basis for the grouping is to check China's growing influence in the region.

Background of QUAD

- After the Indian Ocean Tsunami in 2004 wreaked havoc in the Indo-Pacific region, India stepped up its rescue efforts, even in the neighbouring countries.
- Soon, the disaster relief effort was joined by three other naval powers — the U.S., Australia and Japan.
- Then Japanese Prime Minister Shinzo Abe, brought the Quad countries closer together, with such a concept.
- The 2007 Indo-U.S Malabar naval exercises also saw the partial involvement of Japan, Australia and Singapore.
- The Quad lost momentum post the 2007 and was only revived an entire decade later in 2017.
- March 2021 was the first time, Mr. Biden, Mr. Modi, Australia's outgoing Prime Minister Scott Morrison, and then Japanese PM Yoshihide Suga met virtually for an official Quad summit.
    o This was for the first time a set of objectives for the grouping in a joint statement called the 'The Spirit of the Quad' was released.

Indian Navy – Bangladesh Navy Bilateral EX Bongosagar Commences

The third edition of Indian Navy (IN) – Bangladesh Navy (BN) Bilateral Exercise 'Bongosagar' commenced at Port Mongla, Bangladesh.

- The Harbour Phase of exercise will happen first which will be followed by a Sea Phase in the Northern Bay of Bengal.

Key Points

- Exercise Bongosagar is aimed at developing a high degree of interoperability and joint operational skills.
- It includes a wide spectrum of maritime exercises and operations between the two navies.
- Indian Naval Ships Kora, an indigenously built Guided Missile Corvette, and Sumedha, an indigenously built Offshore Patrol Vessel are participating in the Exercise.

Vice President made the first ever high level tour to Gabon

The Vice President began the first ever visit by a high ranking Indian dignitary to Gabonese Republic with a series of high level meetings in the capital city of Libreville.

About Gabon

- Gabon, a central African country, is rich in natural resources.
- Located on the Atlantic Ocean, it borders Cameroon, Equatorial Guinea, and the Republic of Congo.
- It is sparsely populated, with a population of 2 million (2017) and forests covering 85% of its territory.
- Capital and largest city is Libreville.
- Spoken languages are French (official) and a variety of Bantu languages.
- Gabon nonetheless has one of the highest urbanization rates in Africa.
- The capital, Libreville, and Port Gentil—the economic capital of the country—are home to 59% of the population.
- Because of its oil and mineral reserves and a relatively small population, Gabon is one of Africa's wealthier nations.
- More than 10% of Gabon's area is protected parkland, there are 13 National Parks in the country.

India and Sweden Host Industry Transition Dialogue

India and Sweden hosted the Industry Transition Dialogue Stockholm, as a part of their joint initiative i.e. Leadership for Industry Transition (LeadIT).

- The LeadIT initiative lays specific focus on hard to abate sectors that are key stakeholders in the global climate action and require specific interventions.

Key Points

- Japan and South Africa, the latest members of the initiative were welcomed.
- This extends the total membership of Lead-IT to 37 including countries and companies together.
- This high level of dialogue has also contributed to the UN Conference 'Stockholm+50'.
- During the event, India chaired the roundtable dialogues on Priorities for implementation 2022-23.

About Leadership for Industry Transition (LeadIT)

- The Leadership Group for Industry Transition (LeadIT) gathers countries and companies that are committed to action to achieve the Paris Agreement.
- It was launched by the governments of Sweden and India at the UN Climate Action Summit in September 2019 and is supported by the World Economic Forum.
- LeadIT members subscribe to the notion that energy-intensive industry can and must progress on low-carbon pathways.
  - The aim is to achieve net-zero carbon emissions by 2050.
- The Management Board is made up of representatives from Sweden, India, and the World Economic Forum.
- The Secretariat is responsible for managing the work of the Leadership Group and is hosted by Stockholm Environment Institute (SEI).

About Stockholm+50

- (Stockholm+50) is an international meeting convened by the United Nations General Assembly to be held in Stockholm.
- Theme: "Stockholm+50: a healthy planet for the prosperity of all – our responsibility, our opportunity"
- It will commemorate the 50 years since the 1972 United Nations Conference on the Human Environment.
  - The 1972 conefrence made the environment a pressing global issue for the first time.

- The event will provide leaders with an opportunity to draw on 50 years of multilateral environmental action.
  - To achieve the bold and urgent action needed to secure a better future on a healthy planet.
- Stockholm+50 is convened by the United Nations and is hosted by Sweden with support from the Government of Kenya.

Rail between India and Bangladesh

A new passenger train service Mitali Express via recently-restored Haldibari-Chilahati rail link was started recently.

- This third passenger train service between New Jalpaiguri (India) – Dhaka (Bangladesh)- Mitali Express which was virtually inaugurated in March.

Key Points

- Mitali Express train could not be started earlier due to Covid Pandemic restrictions.
- Mitali Express train will a distance of 595 kms from New Jalpaiguri to Dhaka (out of which 61 Kms is Indian portion).
- The new passenger service will give a boost to tourism of both the countries as it connects Bangladesh with North Bengal as well as North Eastern region of India.
- This will also provide an access of Nepal to Bangladeshi citizens via India by rail.
- The two already existing passenger train services between India and Bangladesh are:
  - Kolkata-Dhaka-Kolkata Maitree Express and
  - Kolkata-Khulna-Kolkata Bandhan Express.

India-Senegal sign MoUs

The Vice President who is on a three-nation tour, arrived in Senegal at Dakar airport.

- This is the first ever high level Indian visit to Senegal and is taking place at a time when both countries are celebrating 60 years of their diplomatic relations.

Key Points

- Three MoUs were signed by both sides to further deepen their bilateral partnership in various areas.
- The first MoU pertains to visa-free regime for Diplomatic and Official passport holders.
- Second agreement relates to renewal of Cultural Exchange Progarmme (CEP) for the period 2022-26.
- Third MoU seeks to enhance bilateral cooperation in youth matters.

About Senegal

- Senegal is a country on the coast of West Africa, bordering the North Atlantic Ocean in west.
- It is bordered by Mauritania along the Senegal River in north, by Mali in east, by Guinea and Guinea-Bissau in south.
- Senegal shares also maritime borders with the island country of Cape Verde in west.
- Senegal lies within three climate zones, with a hot desert zone in north, a semi-arid zone in center and a tropical savanna area in south.
- The country has a population of about 14.8 million people (in 2016).
- Capital and the largest city is Dakar.
- Spoken languages are French (official), Wolof, and other West African languages.

INDIA BANGLADESH JOINT MILITARY EXERCISE

As part of India Bangladesh bilateral defence cooperation, a joint military training exercise Ex SAMPRITI-X is being conducted at Jashore Military Station in Bangladesh.

- The aim of the exercise is to strengthen interoperability between the two armies and to understand each other's tactical drills and operational techniques.

Key Points

- During the joint military exercise Ex SAM-PRITI-X, armies of both the Nations will share expertise in multiple simulated scenarios such as:
    o Counter Terrorism,
    o Humanitarian Assistance & Disaster Relief and
    o UN Peacekeeping Force under UN mandate.
- The Indian contingent of company strength is being represented by a Battalion of the DOGRA Regiment.

Multinational Joint Exercise "Ex Khaan Quest 2022"

A Multinational Peacekeeping exercise "Ex Khaan Quest 2022" featuring participation from military contingents was conducted in Mongolia.

- Indian Army is represented by a contingent from the LADAKH SCOUTS.

Key Points

- The exercise will enable sharing of best practices between the Armed Forces of participating nations such as:
    o field training exercises, combat discussions, lectures and demonstration.
- The 14 day exercise is aimed at following:
    o enhancing interoperability,
    o building military to military relationships,
    o developing peace support operations and
    o military readiness among participating nations.

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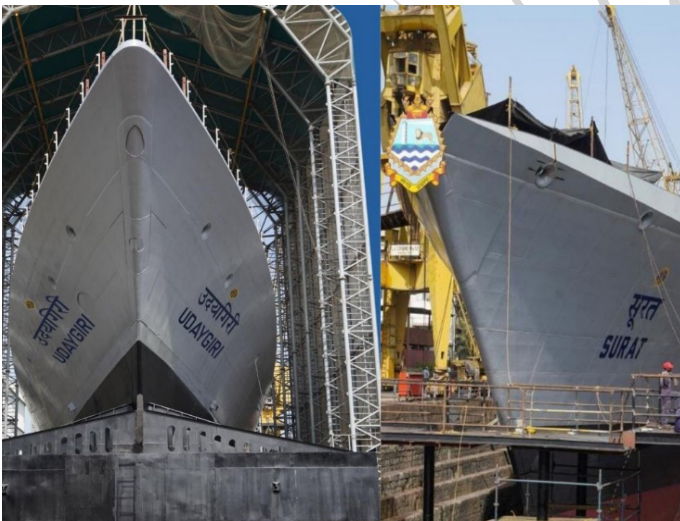
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Surat and Udaygiri Warships

A landmark event in the history of indigenous warship building - two frontline warships of Indian Navy, Surat, and Udaygiri, were launched concurrently at Mazgaon Docks Limited, Mumbai.

- Surat is a Project 15B Destroyer and Udaygiri is a Project 17A Frigate.

Key Points

- 'Surat' is the fourth ship of Project 15B Destroyers which heralds a significant makeover of the P15A (Kolkata Class) Destroyers.
- The ship Surat has been built using the Block construction methodology which involved hull construction at two different geographical locations and has been joined together at MDL, Mumbai.
- Udaygiri', named after a mountain range in the state of Andhra Pradesh, is the third ship of Project 17A Frigates.
- These are follow on of the P17 Frigates (Shivalik Class) with improved stealth features, advanced weapons and sensors and platform management systems.

About Project 15B

- The Project 15B ships are a follow-on of the Kolkata-class destroyers (Project 15A) and also known as the Visakhapatnam-class destroyers.
- Mazagaon Dock Shipbuilders Limited (MDL) is under contract, which was signed in January 2011, to build four Project 15B warships for the Indian Navy.

- The ships are designed by the service's in-house design organisation 'Directorate of Naval Design'.
- The warships have been named after major Indian cities, namely Visakhapatnam, Imphal, Surat and Mormugao.
- The first ship of this class, INS Visakhapatnam, was commissioned in 2021.
- The other two—Mormugao and Imphal—have been launched but not commissioned yet.
- With a full load displacement of 7,400t, each 163m-long Project 15B ship features advanced technology and is designed to cruise at a maximum speed of 30 knots.
- The Project 15B features overall indigenous content of nearly 75%.
- The destroyers will be equipped with indigenous weapons such as:
  - BEL's medium-range surface-to-air missiles,
  - BrahMos surface-to-surface missiles, and
  - Larsen & Toubro's indigenous torpedo tube launchers and anti-submarine indigenous rocket launchers.
- The ship can accommodate a crew of 312 persons has an endurance of 400 nautical miles.
- It can carry out a typical 42-days mission with extended mission time in out-of-area operation.

About Nilgiri-Class (Project 17A) Frigates

The Nilgiri-class stealth frigates, also known as Project 17A frigates, are being built by Garden Reach Shipbuilders & Engineers (GRSE) and Mazagon Dock Shipbuilders for the Indian Navy.

- The Project 17A programme involves the development of seven advanced guided-missile frigates.
- Out of these seven frigates, four will be built by Mazagon Dock Shipbuilders and the remaining three ships by GRSE.
- The programme is a follow-on of the Project 17 Shivalik-class frigates.
- The ships will be named INS Nilgiri, INS Himgiri, INS Udaygiri, INS Dunagiri, INS Taragiri, INS Vindhyagiri and INS Mahendragiri after the names of hill ranges in India.
- Approximately 80% of the materials and equipment are being sourced from domestic vendors for the ship construction.

- The Project 17A programme was approved by the Indian Government in February 2015 to enhance the combat capabilities of the Indian Navy.
- The lead ship of the class, INS Nilgiri, was launched at Mazagon Dock Shipbuilders, Mumbai, in September 2019.
- The Project 17A ship was locally designed by Directorate of Naval Design (Surface Ship Design Group).
- The Nilgiri-class will have a length of 149m, a width of 17.8m and a draft of 5.22m.
- The frigates will have the capacity to accommodate 226 personnel.
- The Project 17A frigates will be powered by combined diesel and gas (CODAG) type propulsion system.

About Garden Reach Shipbuilders & Engineers (GRSE)

- The origin of GRSE dates back to 1884.
- Initially the company was engaged in the business of operating shipbuilding and repair workshops as an unincorporated entity.
- It was incorporated as "Garden Reach Workshops Limited" on February 26, 1934 under the Companies Act, 1913 with the Registrar of Companies, Calcutta.
- It was named "Garden Reach Workshops Private Limited" on November 5, 1957.
- The organization was nationalised in 1960 and was soon brought under the fold of Ministry of Defence.
- Since then the share capital of the company is wholly owned by the President of India along with its nominees from time to time.
- Following the government acquisition the company name was changed to "Garden Reach Workshops Limited" on November 30, 1961.
- The name was again changed to "Garden Reach Shipbuilders & Engineers Limited" on December 31, 1976, following the certificate of incorporation by the Registrar of Companies, West Bengal.

About Mazagaon Dock Shipbuilders Limited (MDL)

- Mazagon Dock Shipbuilders Limited, Mumbai, an ISO 9001: 2015 Company is one of the leading shipbuilding yard in India.
- The History of Mazagon Dock dates back to 1774, when a small dry dock was constructed in Mazagon.
- It was incorporated as a Private Limited Company in 1934.
- After its takeover by the Government in 1960, Mazagon Dock grew rapidly to become the premier war-shipbuilding yard in India.

- It has grown from a single unit, small ship Repair Company, into a multi-unit and multi-product company.
- The company's current portfolio of designs spans a wide range of products for both domestic and overseas clients.
- Since 1960, MDL has built total 799 vessels including 26 warships, from advanced destroyers to missile boats and 6 submarines.

INS Gomati Decommissioned

Having served the nation and the Indian Navy with great distinction for 34 eventful years, INS Gomati was decommissioned at sunset at the Naval Dockyard in Mumbai.

- The ship was paid off under the command of Captain Sudip Malik.

Key Points

- INS Gomati derives her name from the vibrant river Gomti in Lucknow and was commissioned on 16 April 1988.
- The third ship of the Godavari class guided-missile frigates, INS Gomati was also the oldest warrior of the Western Fleet when decommissioned.
- During her service, she participated in Operations Cactus, Parakram and Rainbow, and several bilateral and multinational naval exercises.
- After her decommissioning, the ship's legacy will be kept alive in an open air museum being set up on the picturesque banks of river Gomti in Lucknow.
  - Several of INS Gomati's combat systems will also be displayed as military and war relics.

Defence Acquisition Council clears proposals worth Rs 76,390 crore

Defence Acquisition Council (DAC) accorded Acceptance of Necessity (AoN) for Capital Acquisition Proposals of the Armed Forces amounting to Rs 76,390 crore.

- This was done under 'Buy (Indian)', 'Buy & Make (Indian)' and 'Buy (Indian-IDDM)' categories.
- This will provide substantial boost to the Indian Defence Industry and reduce foreign spending significantly.

About Defence Acquisition Council (DAC)

The Defence Acquisition Council is the highest decision-making body in the Defence Ministry.

- The Minister of Defence is the Chairman of the Council.
- Members: Raksha Rajya Mantris (RRMs)
  - Chief of Defence Staff (CDS) (when appointed)
  - Chief of Army Staff (COAS)
  - Chief of Naval Staff (CNS)
  - Chief of Air Staff (CAS)
  - Defence Secretary
  - Secretary Dept. of Defence Production and Supplies
  - Secretary, Defence Research and Development
  - Secretary, Defence Finance
  - Vice Chief of Defence Staff (when appointed)/CISCSpecial Secretary (Acquisition)
- It was formed, after the Group of Ministers recommendations on 'Reforming the National Security System', in 2001, post Kargil War (1999).
- Functions:
  - Give 'in principle' approval to Capital acquisitions in the Long Term Perspective Plan (LTPP) covering a 15-year time span.
  - Give 'in principle' acceptance of necessity to each Capital acquisition project.

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Intermediate Range Ballistic Missile, Agni-4

A successful training launch of an Intermediate Range Ballistic Missile, Agni-4, was carried out from APJ Abdul Kalam Island, Odisha.

- The successful test was part of routine user training launches carried out under the aegis of the Strategic Forces Command.

About Agni Missiles

- The Agni category missiles are solid propelled ballistic missiles ranging from short range missiles to intermediate range missiles (700-5000 kms) with road and rail mobility.
- The Agni missile is a component of the Integrated Guided Missile Development Program (IGMDP).
- The program was launched by India in 1983 with a budget of $260 million.
- It was managed by Defence Research and Development Laboratory (DRDL).
- The Agni category missiles were to use the Indian Space Research Organisation (ISRO) developed solid fuelled engines.
- In 1989, India test fired Agni category missile that had a range of 1000-1500kms. It was the Agni I category missile.
- The first stage of the solid fuelled booster mo-

tor of the Satellite Launch Vehicle (SLV-3) was used for the first stage of the two-staged Agni missile.

- In 1999, India under the auspices of the Defence Research and Development Organisation (DRDO), test fired the Agni-II medium range ballistic missile.
  o Agni-II has an improved guidance system with a range of 2000kms.
- Agni-II used solid fuel in both the stages, thereby, drastically cutting down preparation time for launching the missile.
- 2011 was a landmark year for India's nuclear deterrence as it was in the same year that the intermediate range Agni-III was also inducted in the Indian Army.
- However, despite the fact that India had developed Agni-III with a range of 3000 kms, they still needed to develop a longer range ca-

pability.
- This led to the development of the Agni-IV intermediate range ballistic missile.
  o The missile had a range of 4000kms.
- Agni-IV missile is nuclear capable with a range of 4000kms.
- India's desire to achieve inter-continental range capability further led India to develop the Agni-V missile with a range of 5000kms.
- Unlike the other versions of the Agni missile, the Agni-V is a three-stage solid propelled ballistic missile.
- Agni-V missile may be fitted with multiple independently targetable re-entry vehicles (MIRVs) as well as with manoeuvrable re-entry vehicle (MaRV).
  o Both technologies being developed by the DRDO.
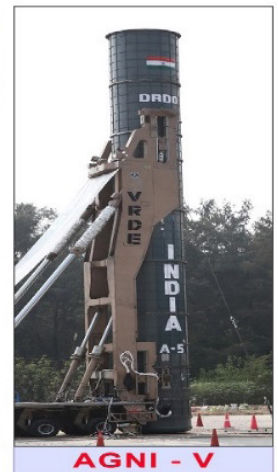

AGNI - I   AGNI - II   AGNI - III   AGNI - IV   AGNI - V

Silver Jubilee Celebrations of TRAI

Prime Minister addressed a programme marking silver jubilee celebrations of Telecom Regulatory Authority of India (TRAI).

About TRAI

The Telecom Regulatory Authority of India (TRAI) was established with effect from 20th February 1997 by an Act of Parliament, called the Telecom Regulatory Authority of India Act, 1997.

- **Objective:** to regulate telecom services, including fixation/revision of tariffs for telecom services which were earlier vested in the Central Government.
- One of the main objectives of TRAI is to provide a fair and transparent policy environment which promotes a level playing field and facilitates fair competition.
- TRAI's mission is to create and nurture conditions for growth of telecommunications in the country.
- The TRAI Act was amended by an ordinance, effective from 24 January 2000, establishing a Telecommunications Dispute Settlement and Appellate Tribunal (TDSAT).
  - TDSAT takes over the adjudicatory and disputes functions from TRAI.
- TDSAT was set up to oversee following:
  - to adjudicate any dispute between a licensor and a licensee,
  - to adjudicate any dispute between two or more service providers,
  - to adjudicate any dispute between a service provider and a group of consumers, and
  - to hear and dispose of appeals against any direction, decision or order of TRAI.

World Telecommunication and Information Society Day 2022

World Telecommunication and Information Society Day (WTISD) is celebrated annually to help raise awareness of the possibilities that the use of the Internet and other information and communication technologies (ICT) can bring to societies and economies.

- The WTISD-2022 is centered on the theme, "Digital technologies for Older Persons and Healthy Ageing".

Key Points

WTISD is celebrated on 17 May, which marks the anniversary of the signing of the first International Telegraph Convention and the creation of the ITU.

- World Telecommunication Day has been celebrated annually on 17 May since 1969, marking the founding of ITU and the signing of the first International Telegraph Convention in 1865.
- This year's theme raises awareness of the important role of telecommunications/ICTs in supporting people to stay healthy, connected and independent - physically, emotionally and financially.

Note: Earlier, India had been elected as a Member of the International Telecommunications Union (ITU) Council for another 4-year term (2019-2022).

Digital India BHASHINI

MeitY holds Brainstorming with Researchers & Startups to shape strategy for Digital India BHASHINI.

- Digital India BHASHINI is India's AI led language translation platform.

About Digital India BHASHINI

- Mission Digital India BHASHINI, i.e., (BHASHa INterface for India) is a part of the National Language Translation Mission (NLTM).
- A Bhashini Platform will make Artificial Intelligence (AI) and Natural Language Processing (NLP) resources available to MSMEs, Startups and Individual Innovators in the public domain.
- This mission aims to empower Indian citizens by connecting them to the Digital Initiatives of the country in their own language.
- The Bhashini platform is interoperable and will catalyze the entire Digital Ecosystem.
- It is a giant step to realize the goal of Digital Government.
- Mission Digital India Bhashini also aims to increase the content in Indian languages on

the Internet substantially in the domains of public interest.

- Particularly in governance-and-policy, science & technology, etc., which will encourage citizens to use the Internet in their own language.
- Multi-linguality presents a major opportunity to startups for developing innovative solutions that can cater to all citizens irrespective of the language they know.

India's First Lavender Festival

The country's first 'Lavender Festival' was inaugurated at Bhaderwah in Jammu and Kashmir which is also known as the birthplace of India's Purple Revolution.

- The country's first National Institute of High Altitude Medicine is also being built in Bhaderwah.

Key Points

- Lavender is an avenue of employment generation and research opening many paradigms of development for the region.
- Lavender Festival in Bhaderwah is being attended in large numbers by Scientists, Technologists, Progressive Farmers and Agri- entrepreneurs.
- Lavender cultivation has employed about 5,000 farmers and young entrepreneurs in geographically remote areas of J&K.
- More than 1,000 farming families are cultivating it on more than 200 acres.

India to contest for re-election to ITU

India is contesting, for re-election, to the International Telecommunications Union (ITU) Council, for the term 2023-2026.

- India has been a member of ITU since 1869 and has been continuously participating, actively in the works, and activities of the Union.

About ITU

- The International Telecommunication Union (ITU) is the United Nations specialized agency for information and communication technologies – ICTs.
- It was founded in 1865 to facilitate international connectivity in communications networks.
- It's functions can be described as following:
  - It allocates global radio spectrum and satellite orbits,
  - develops the technical standards that ensure networks and technologies seamlessly interconnect,
  - and it strives to improve access to ICTs to underserved communities worldwide.
- ITU's global membership includes 193 Member States as well as some 900 companies, universities, and international and regional organizations.
- India has been a regular member of the ITU Council since 1952.
- India was last elected as a Member of the ITU Council for another 4-year term (2019-2022) in 2018.

"विद्याधनं सर्व धनं प्रधानम्"

RAO'S ACADEMY
for Competitive Exams
(A unit of **RACE**)

आपकी सफलता हमारी प्राथमिकता